

Figures

Figure 1

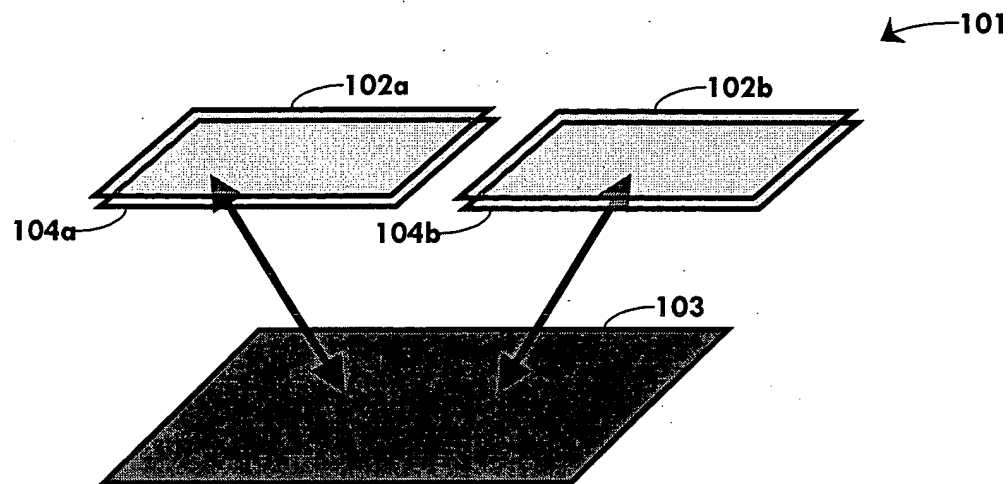


Figure 2

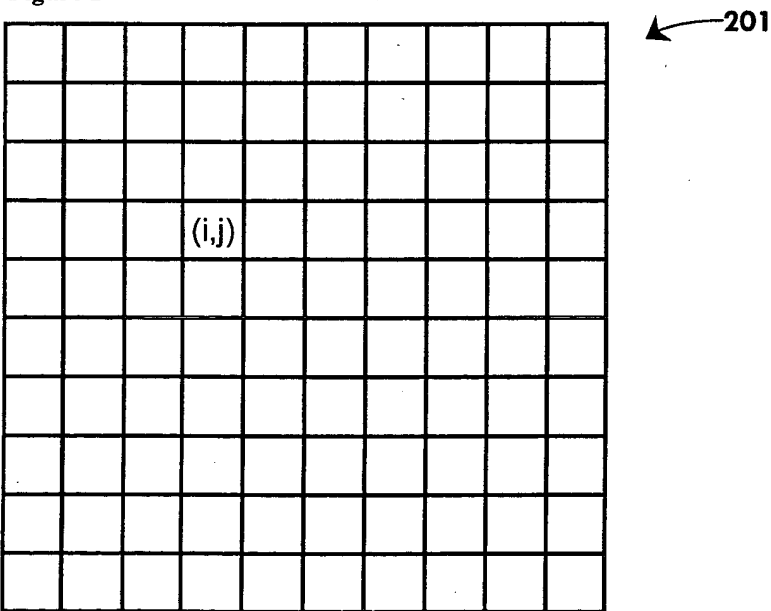


Figure 3

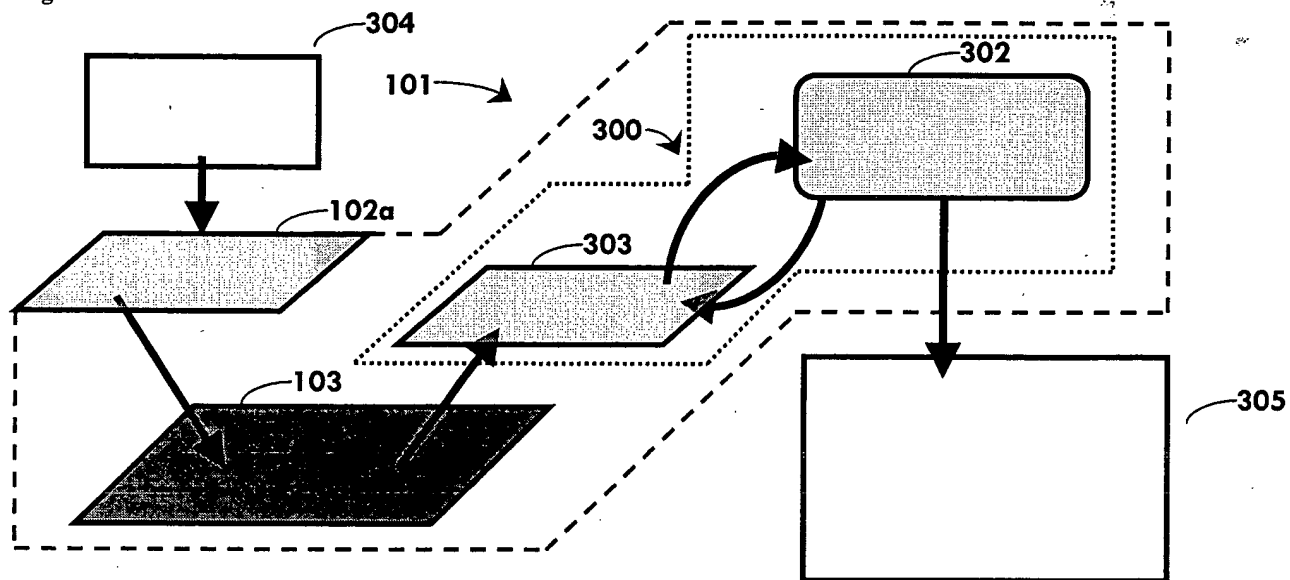


Figure 4

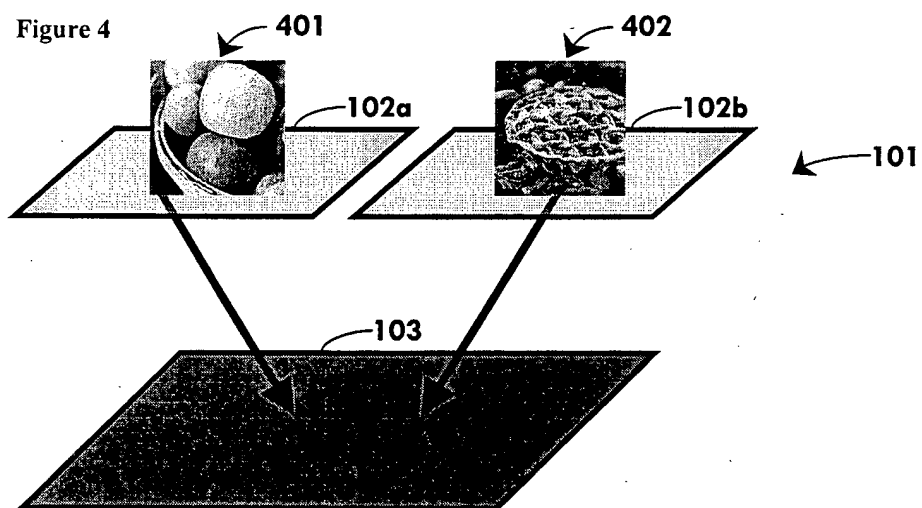


Figure 5

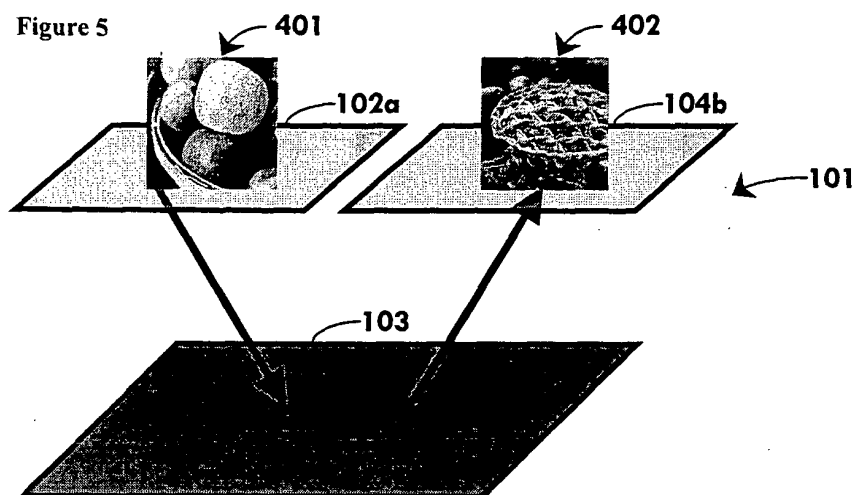


Figure 6

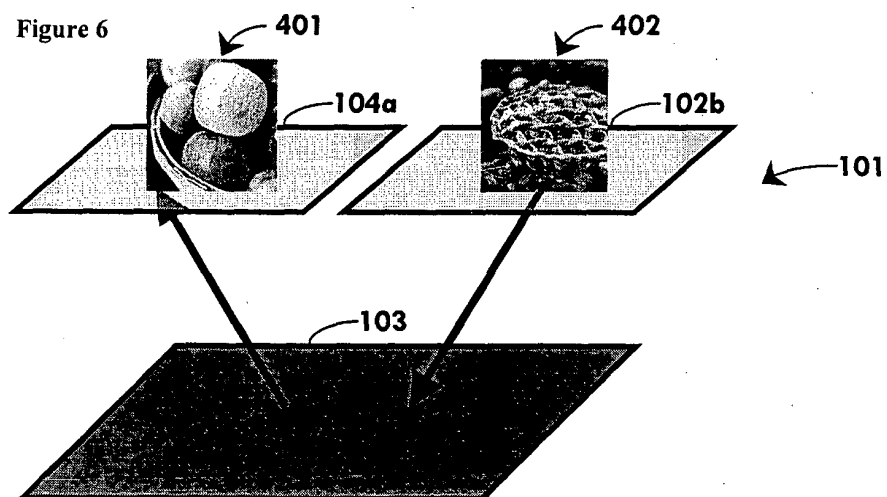


Figure 7

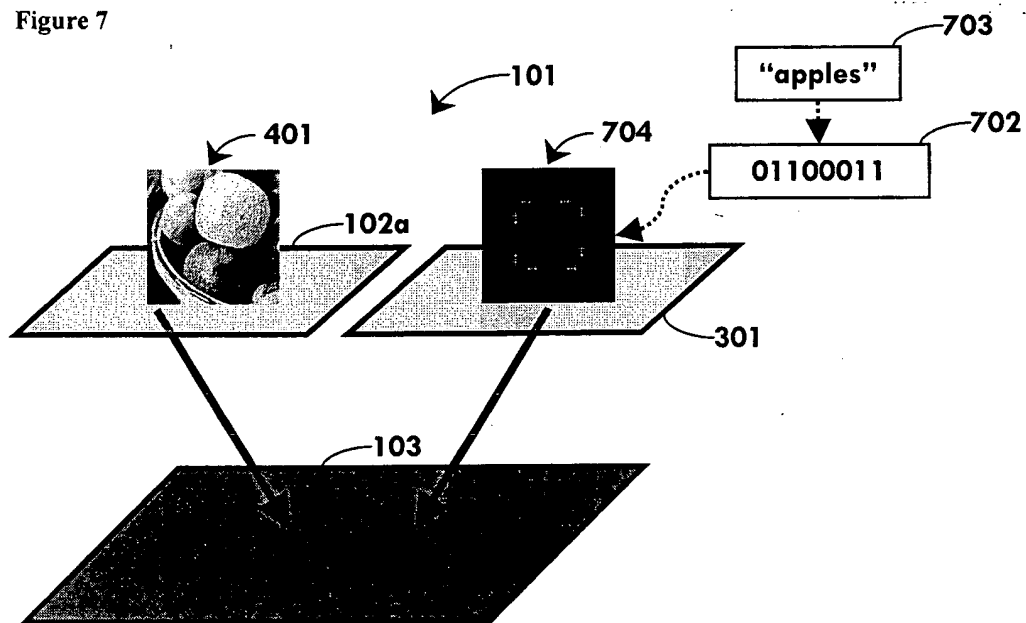


Figure 8

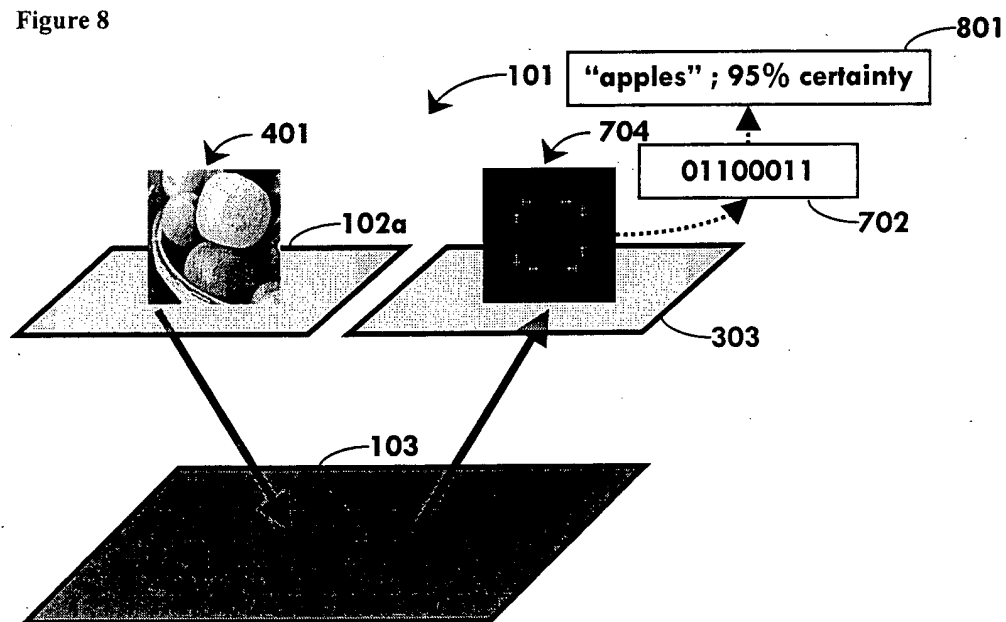


Figure 9

Input information to a buffer

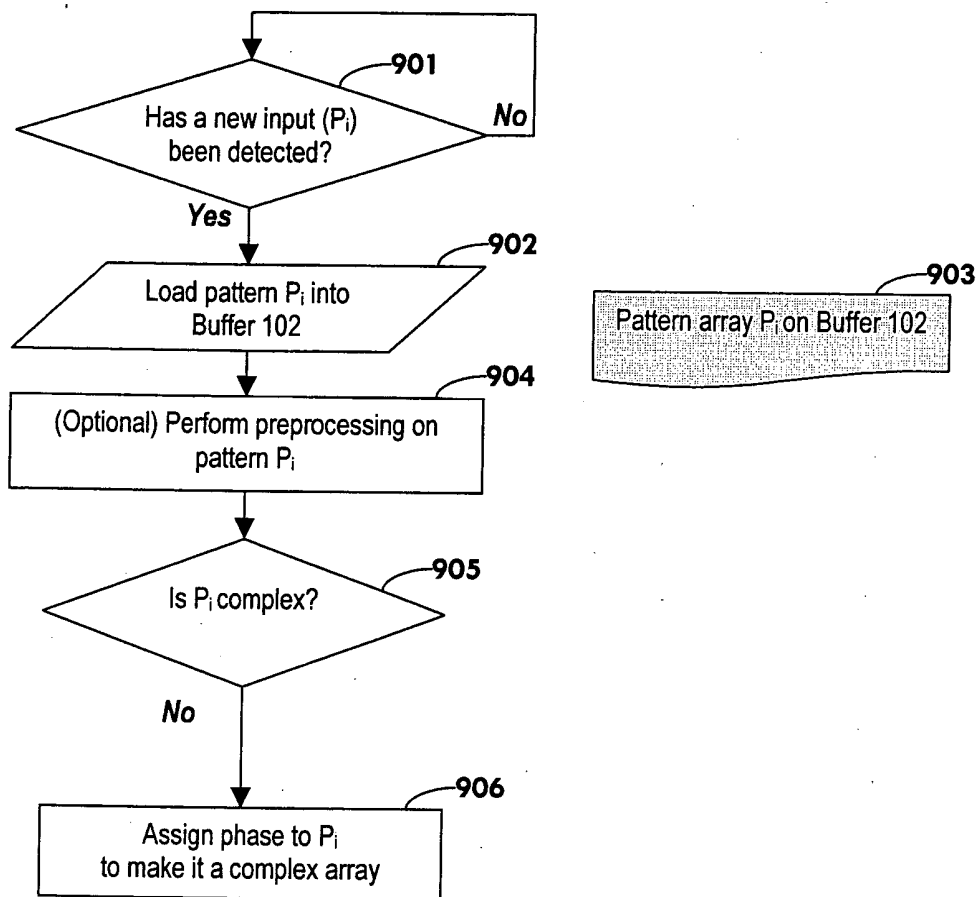


Figure 10

Transport information from buffer to cortex or cortex to buffer

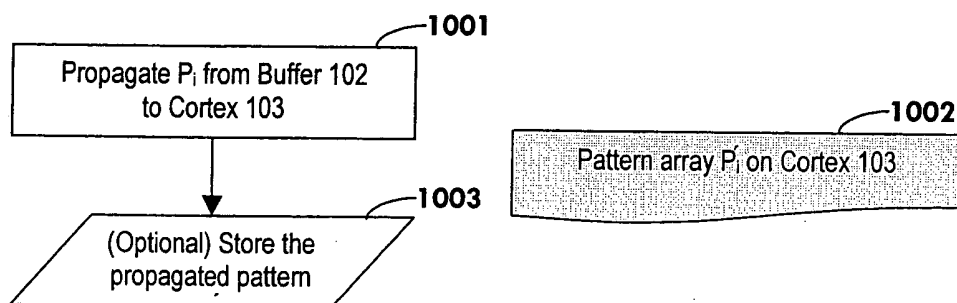


Figure 11

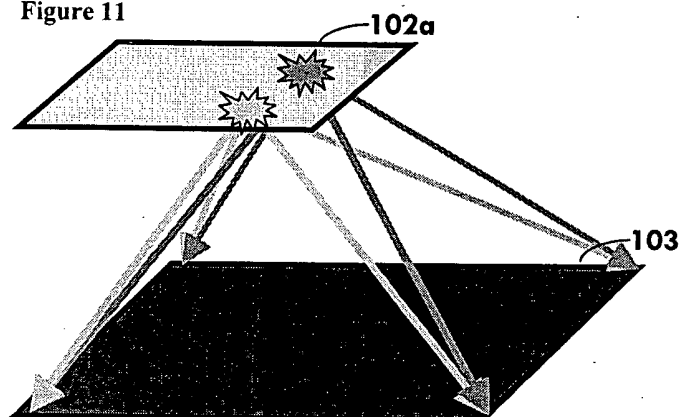


Figure 12

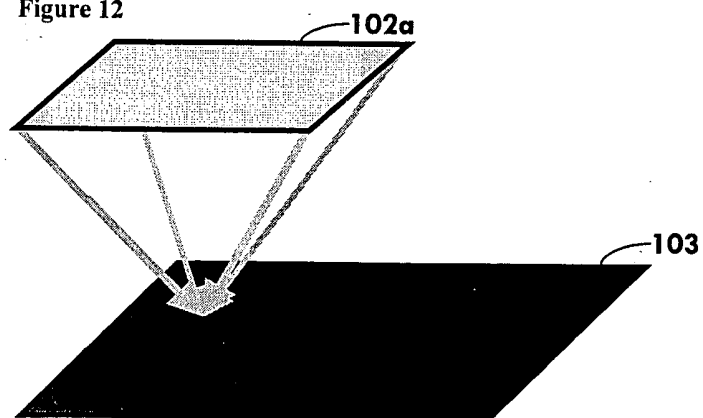


Figure 13

Associate two or more patterns

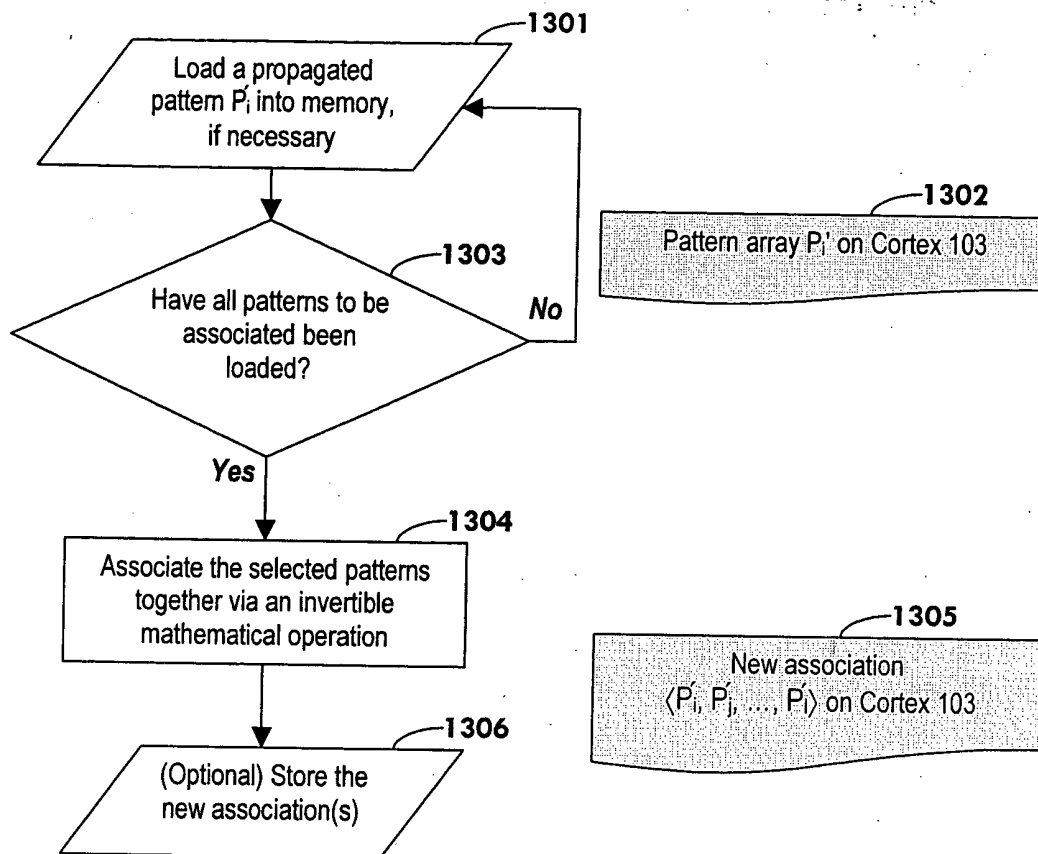


Figure 14

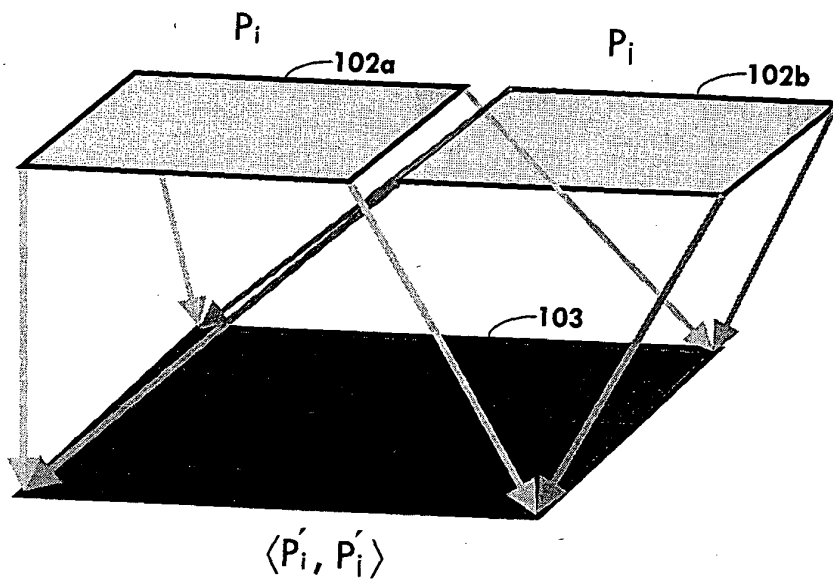


Figure 15

Superpose two or more associations

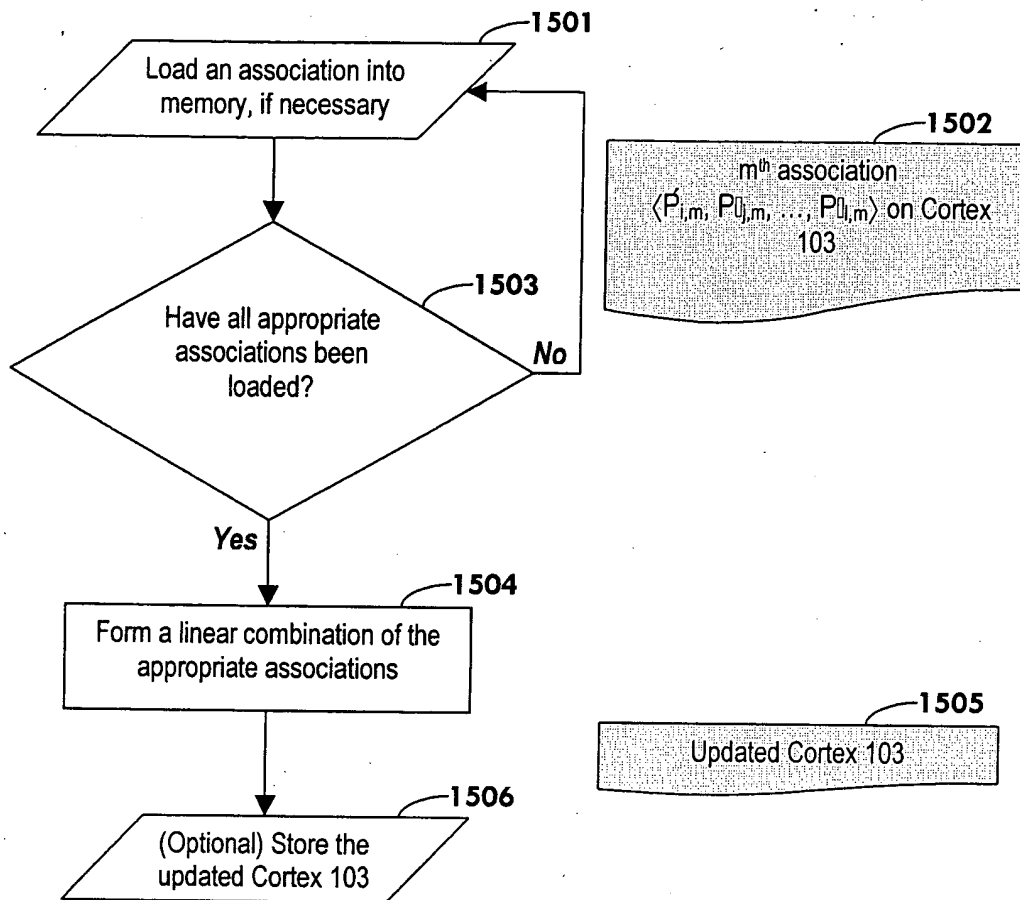


Figure 16

De-associate a pattern from a stored cortex

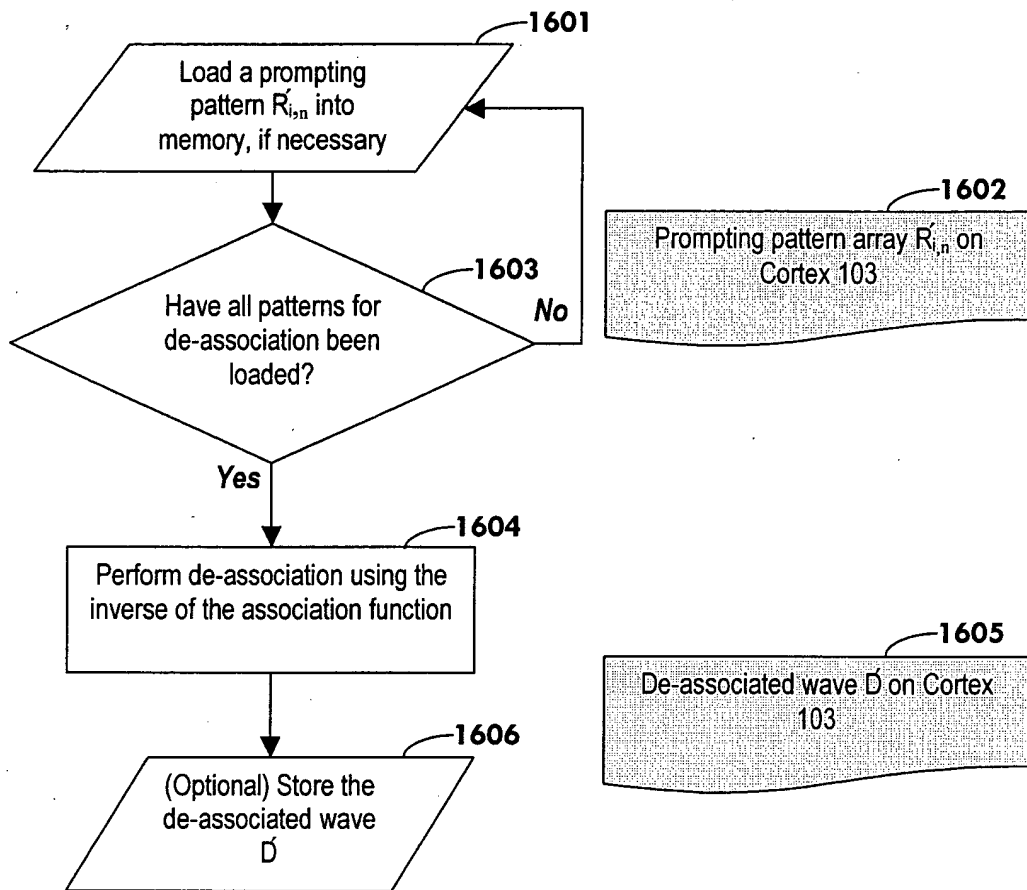


Figure 17

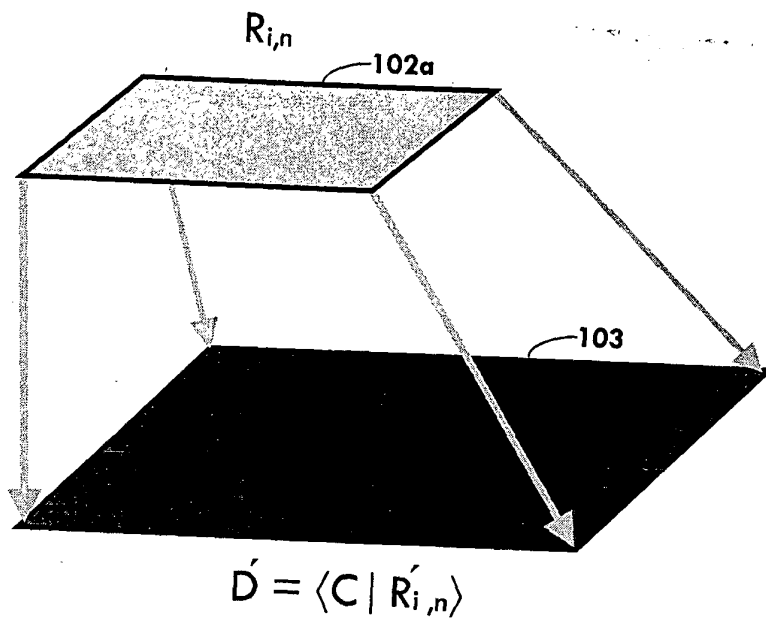


Figure 18

Export buffer information

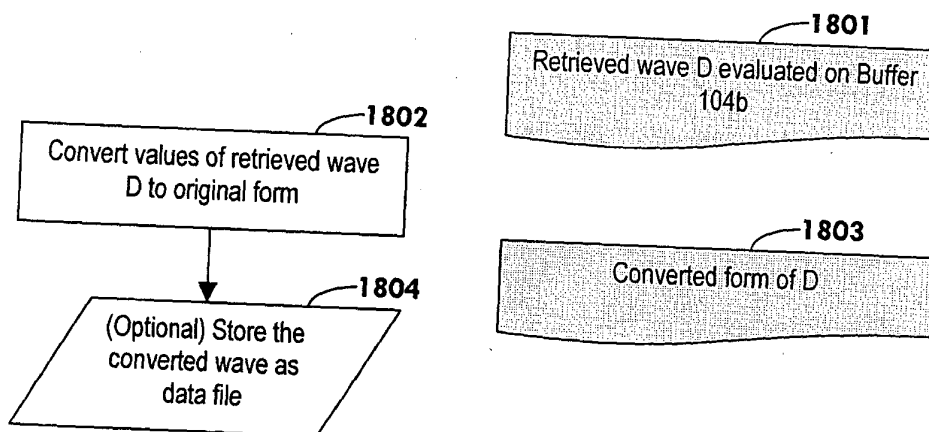


Figure 19

Generate an internal identification pattern (IIP)

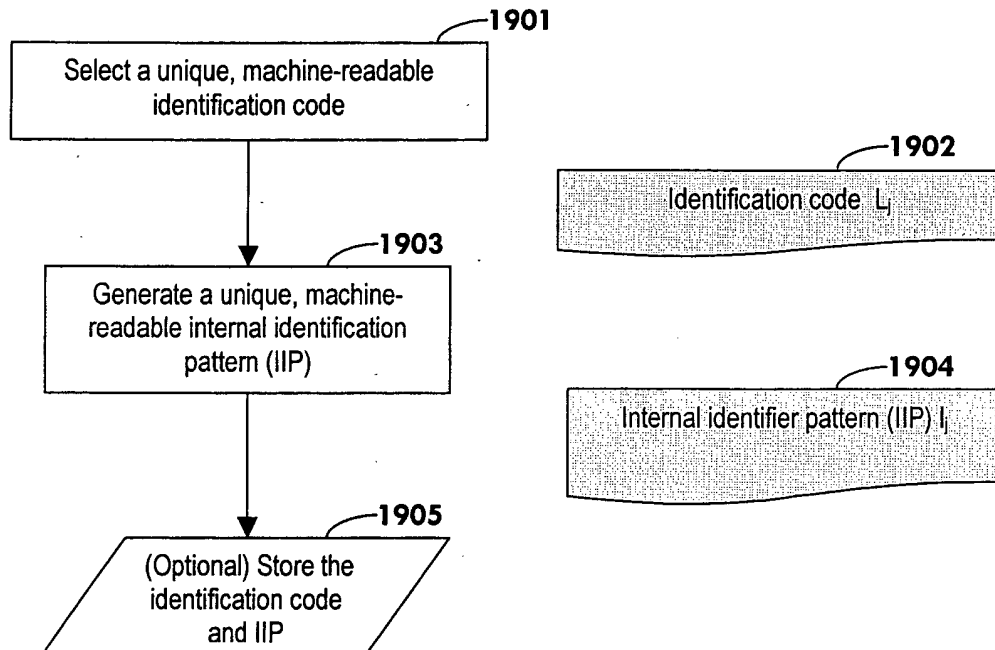


Figure 20

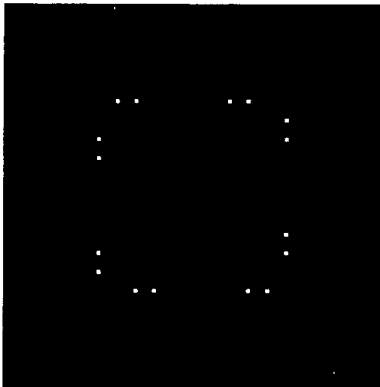


Figure 21

Decode a retrieved identification pattern (IIP)

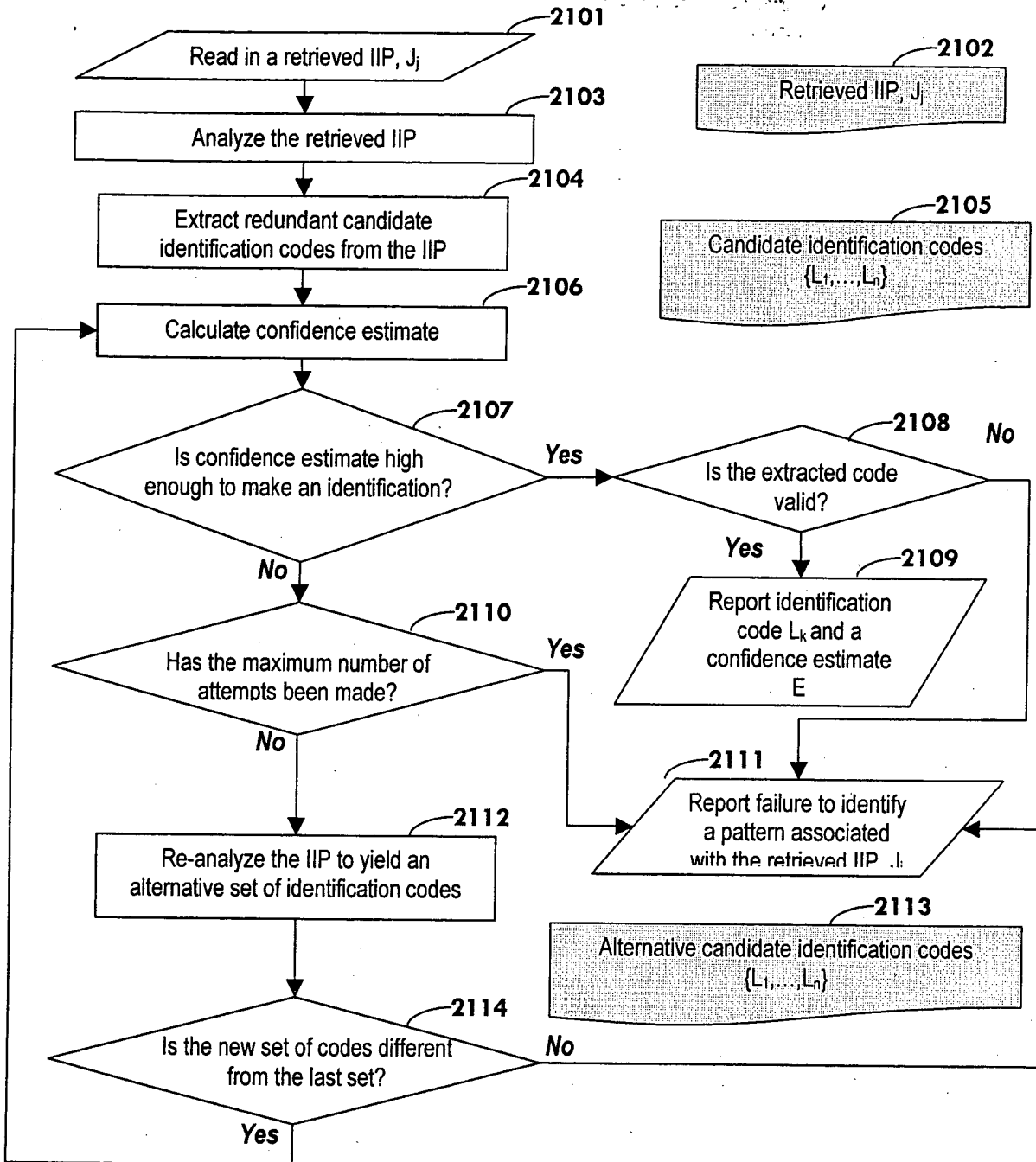


Figure 22

Learn

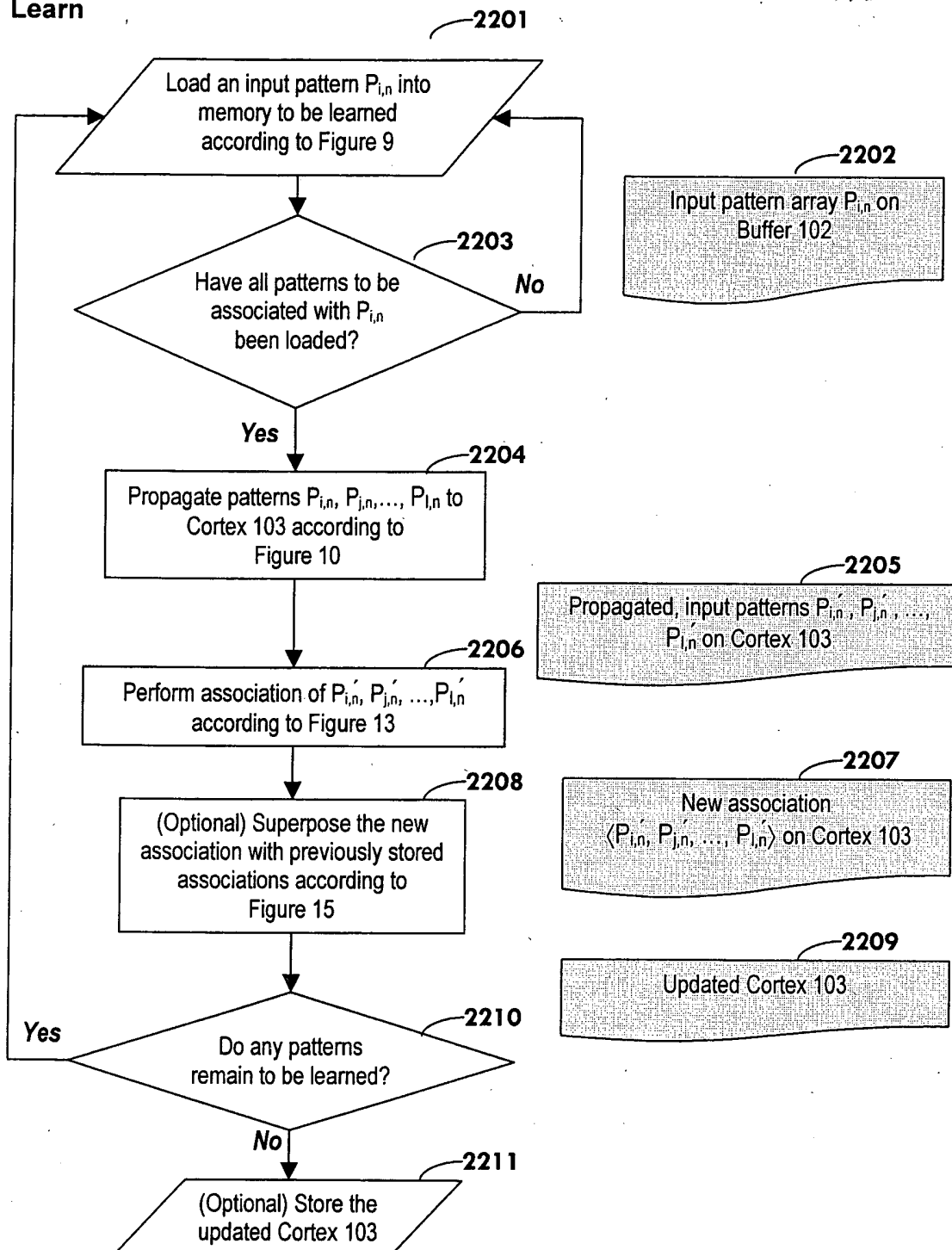


Figure 23

Recognize

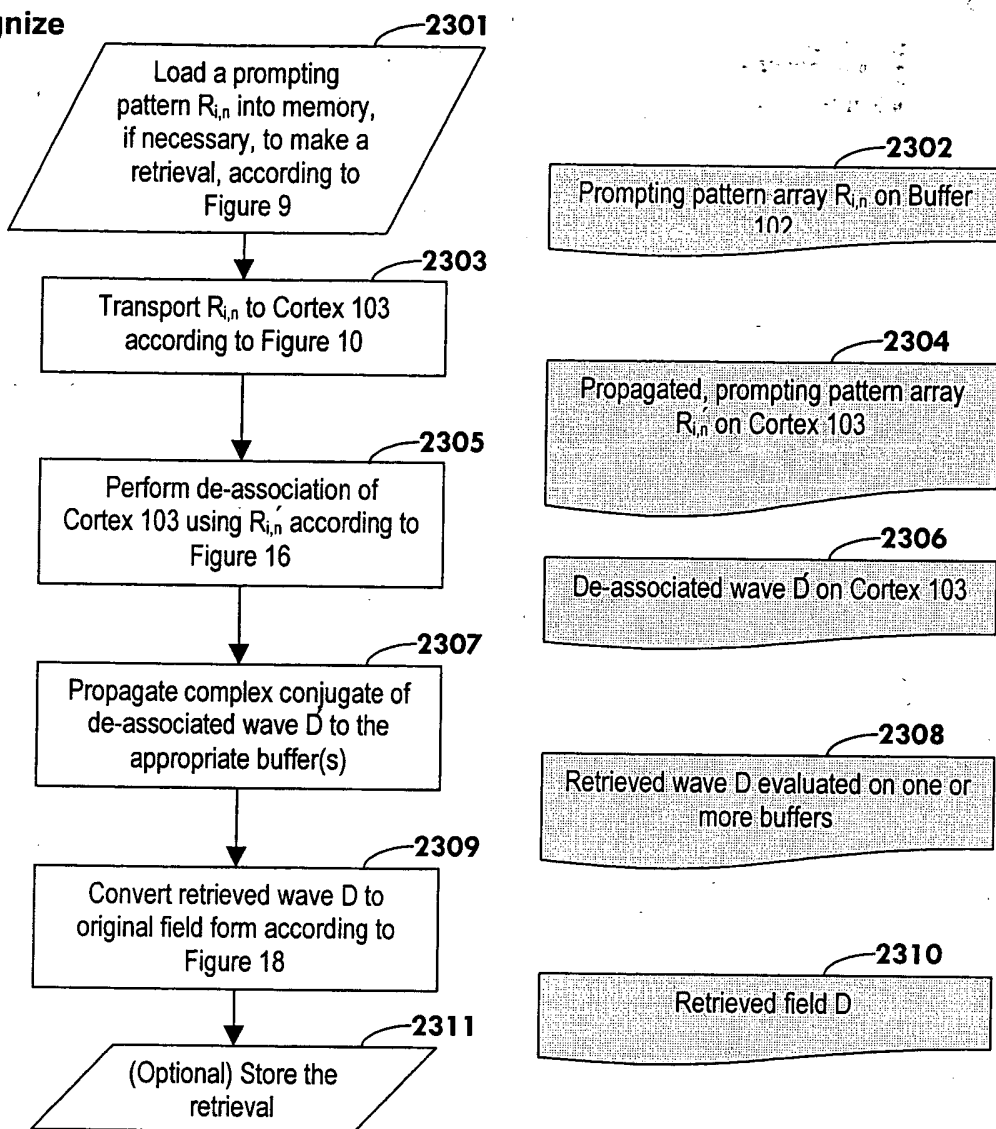


Figure 24

Learn for autonomous id ntification

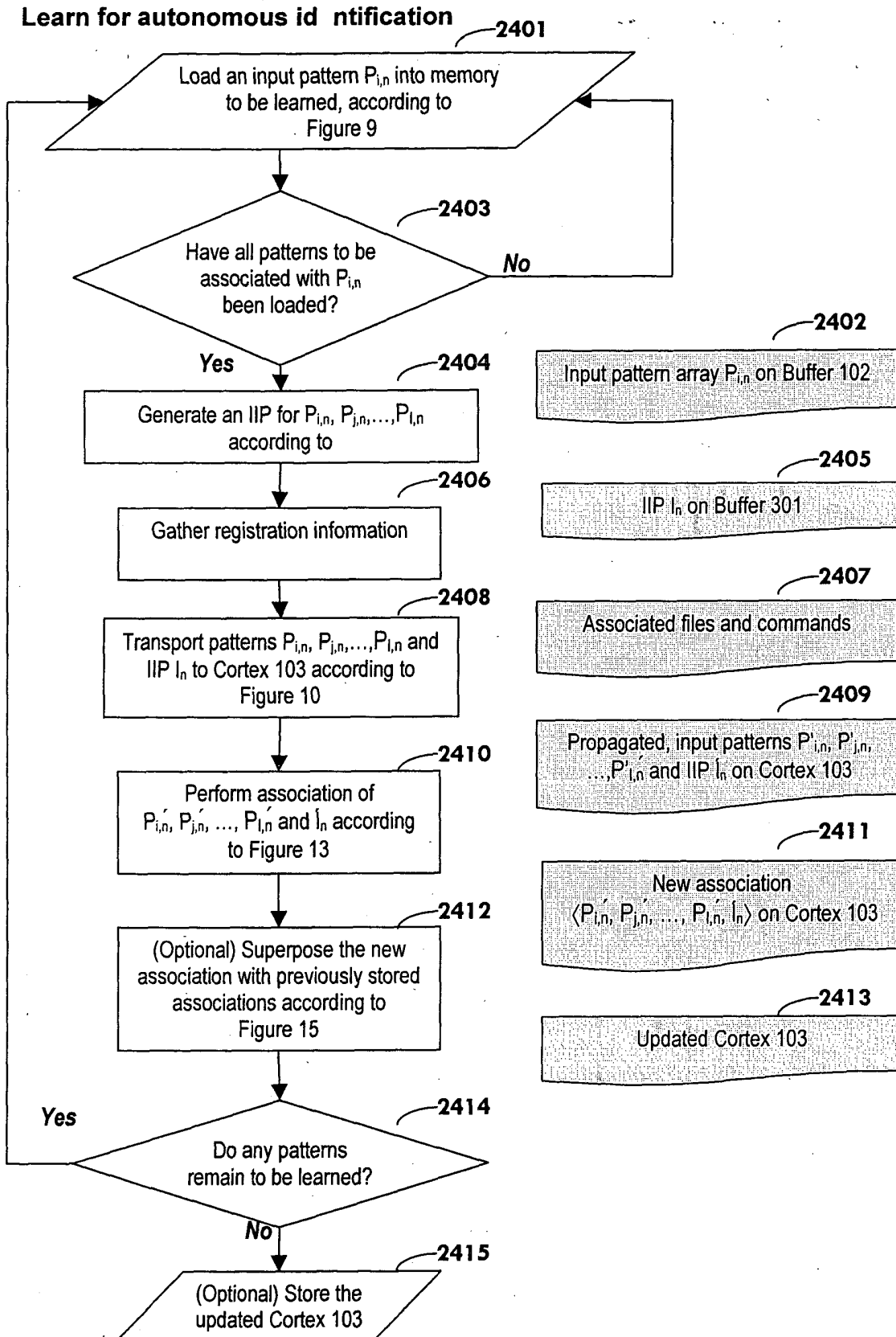


Figure 25

Identify and respond autonomously

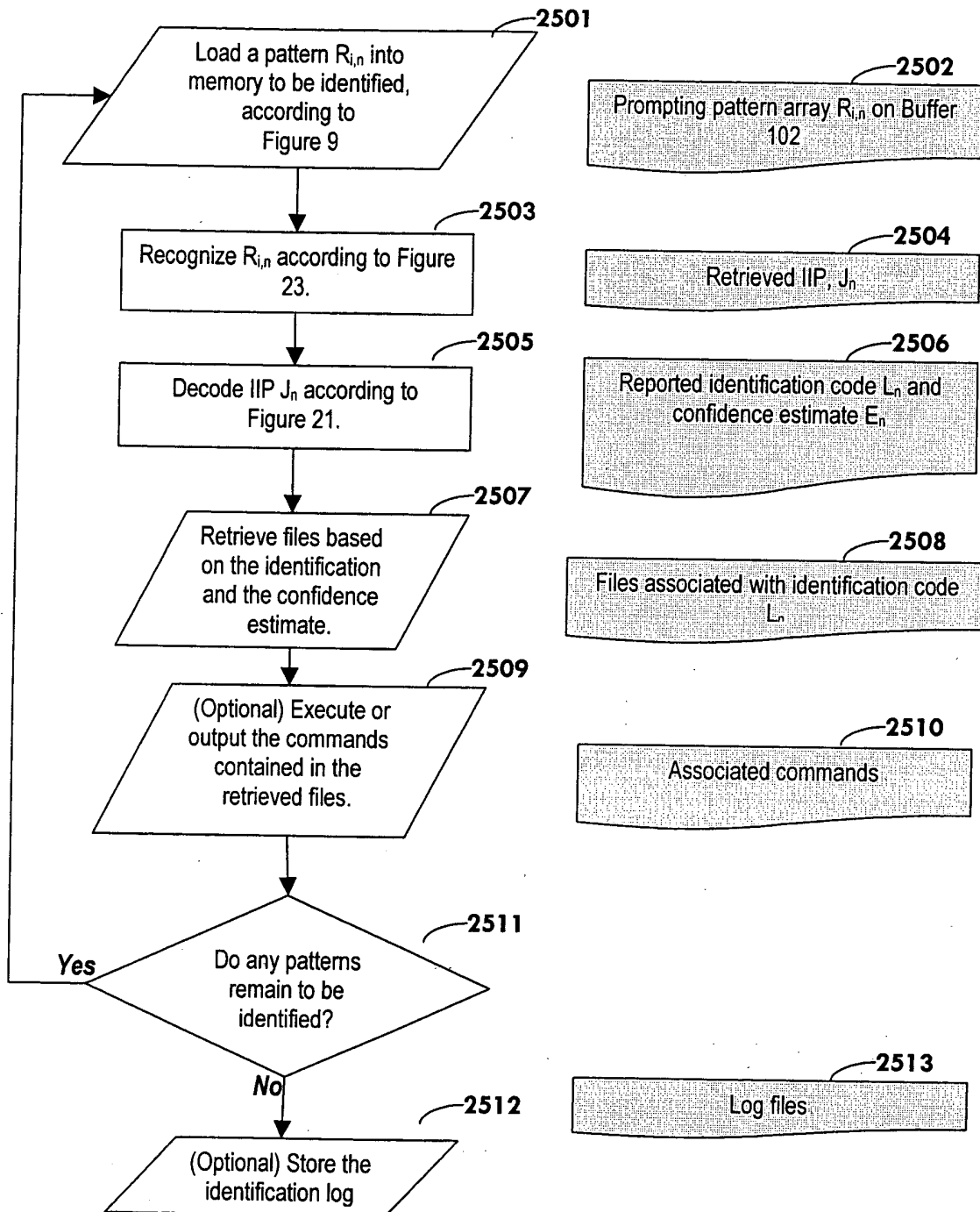


Figure 24

Adaptively improv identification performance through xperi nce

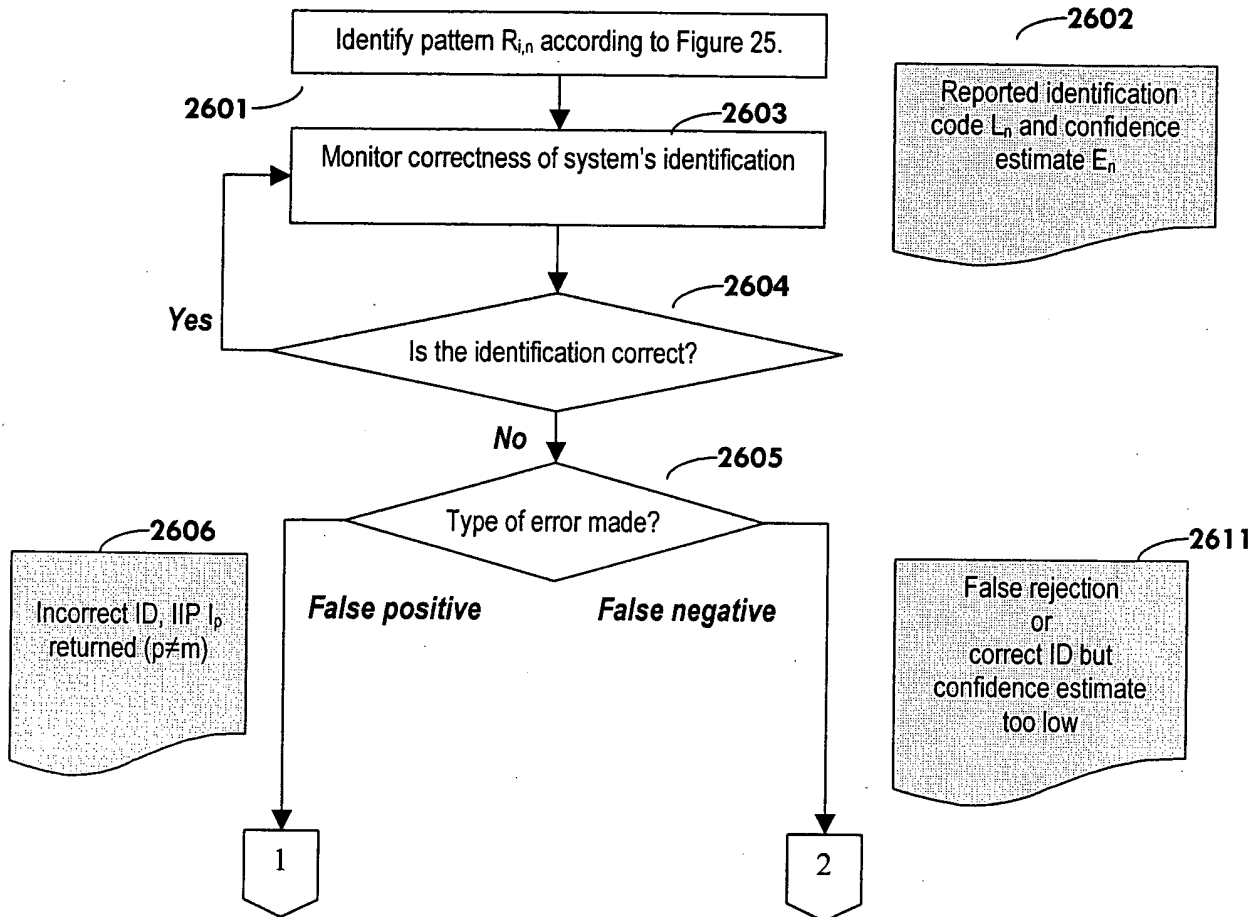


Figure 26 (cont.)

Adaptively improve identification performance through experience, continued

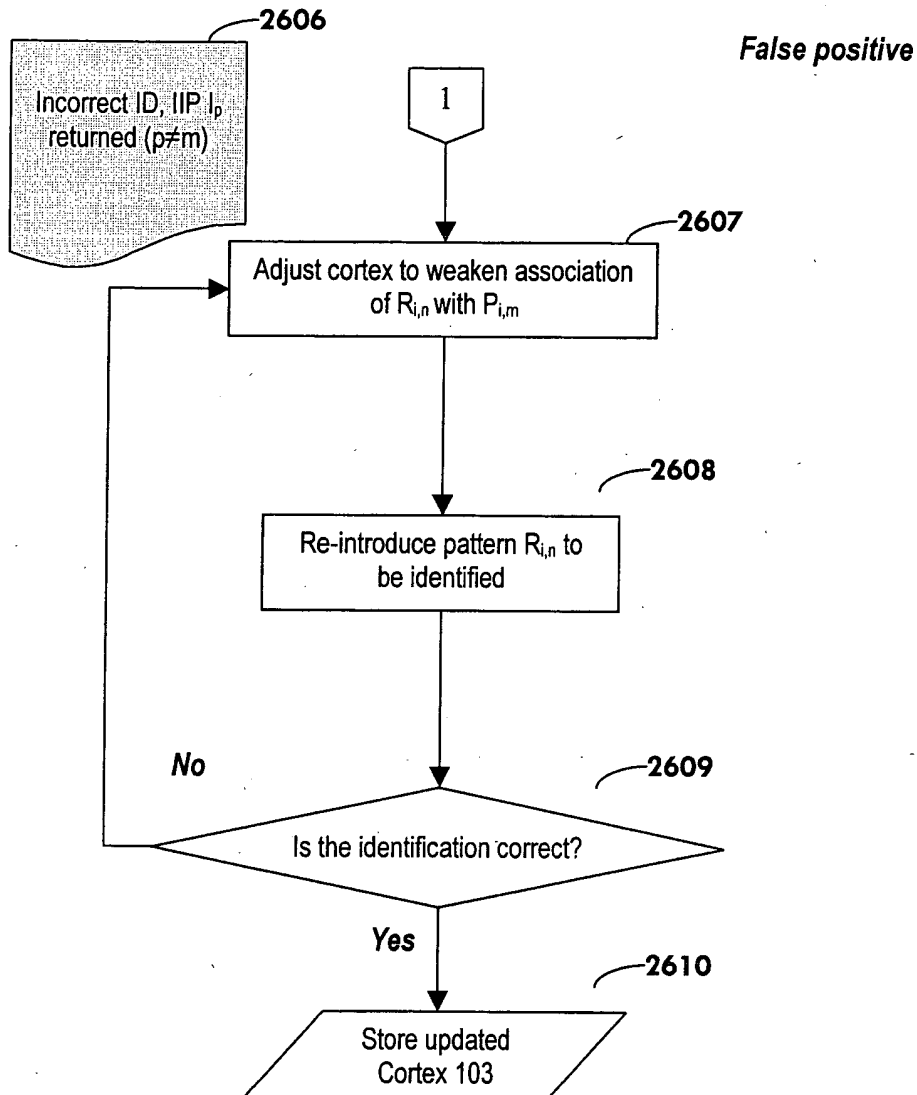


Figure 26 (cont)

Adaptively improve identification performance through experience, continued

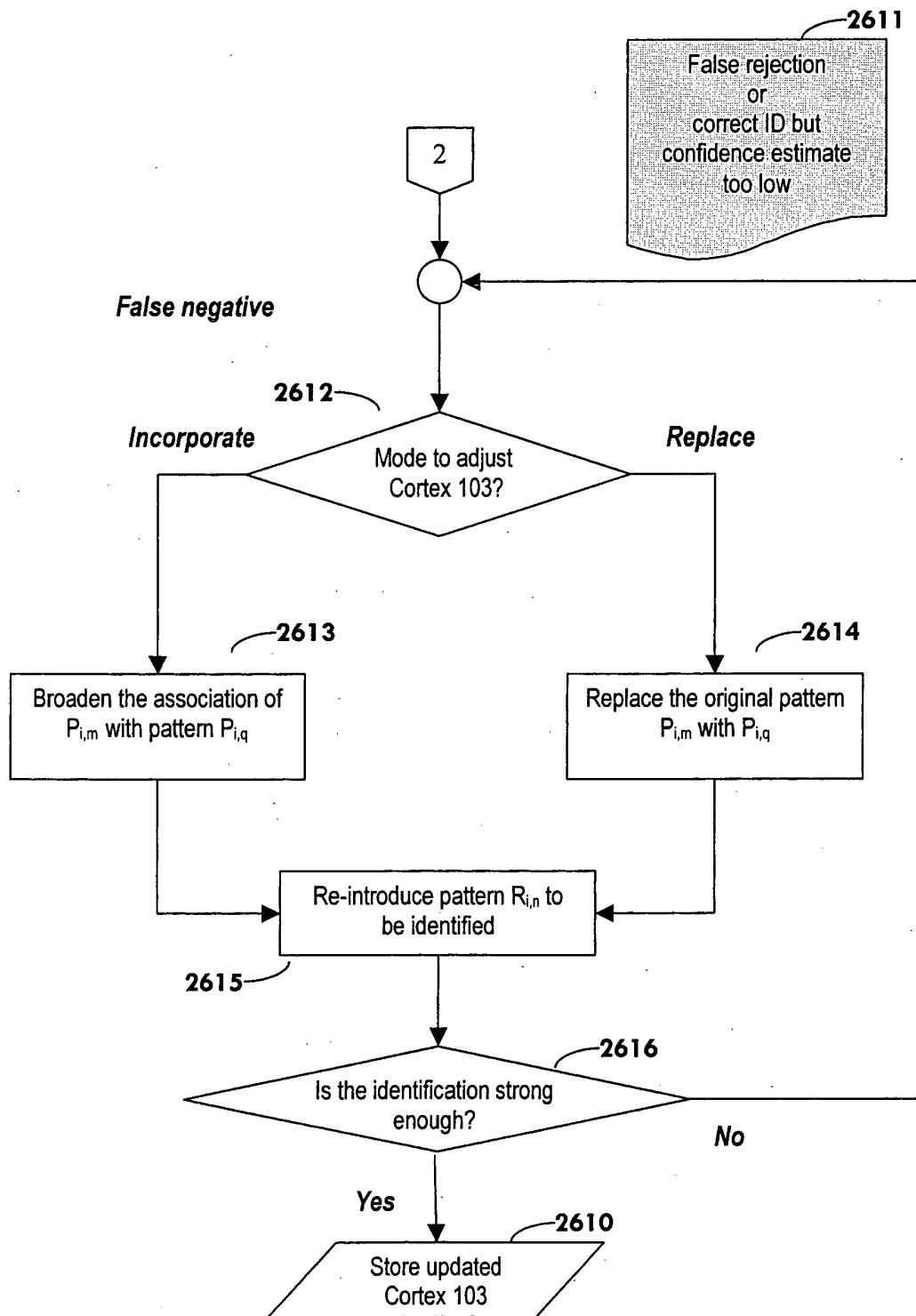


Figure 27

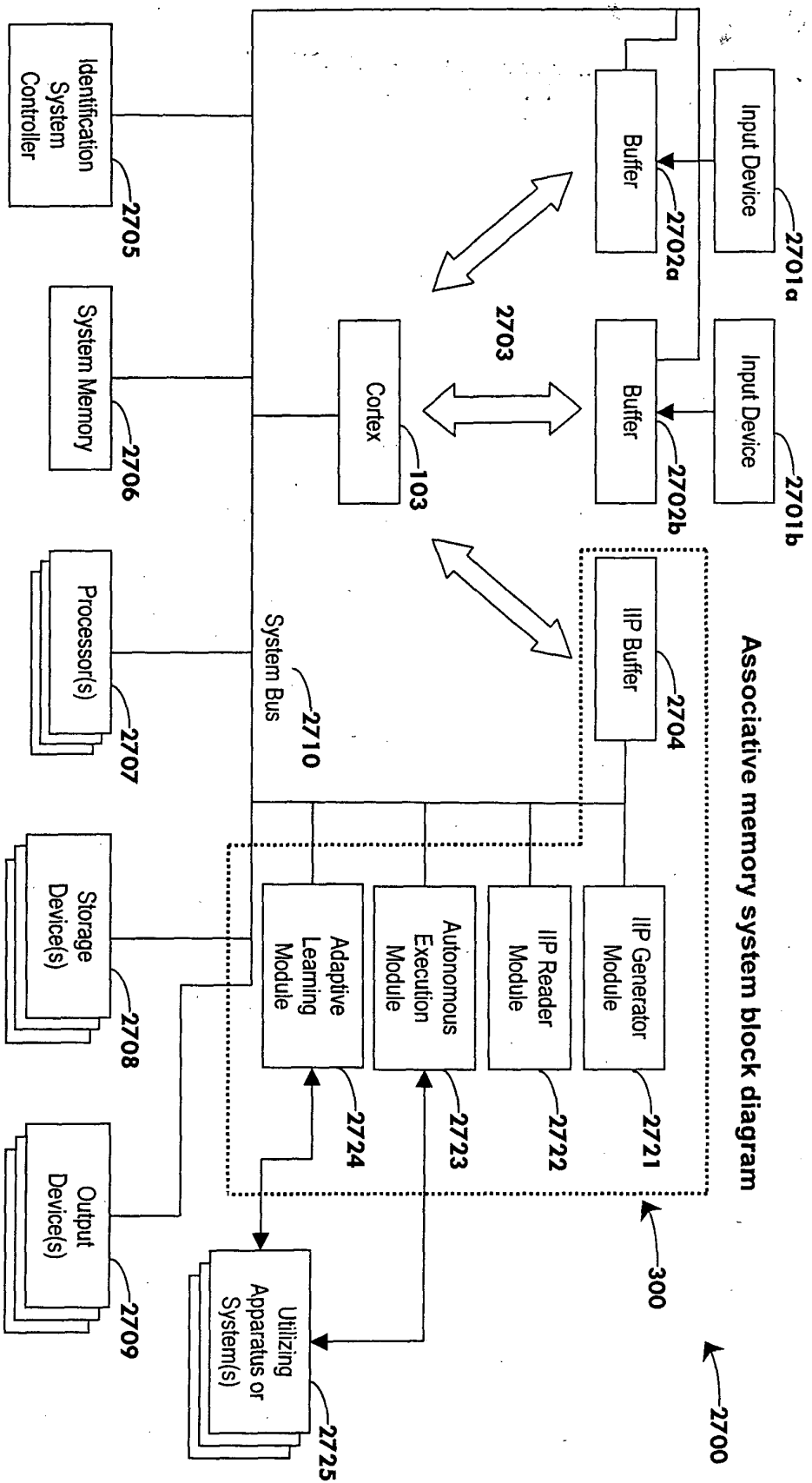


Figure 28

Buffer block diagram for physical wave-based embodiment

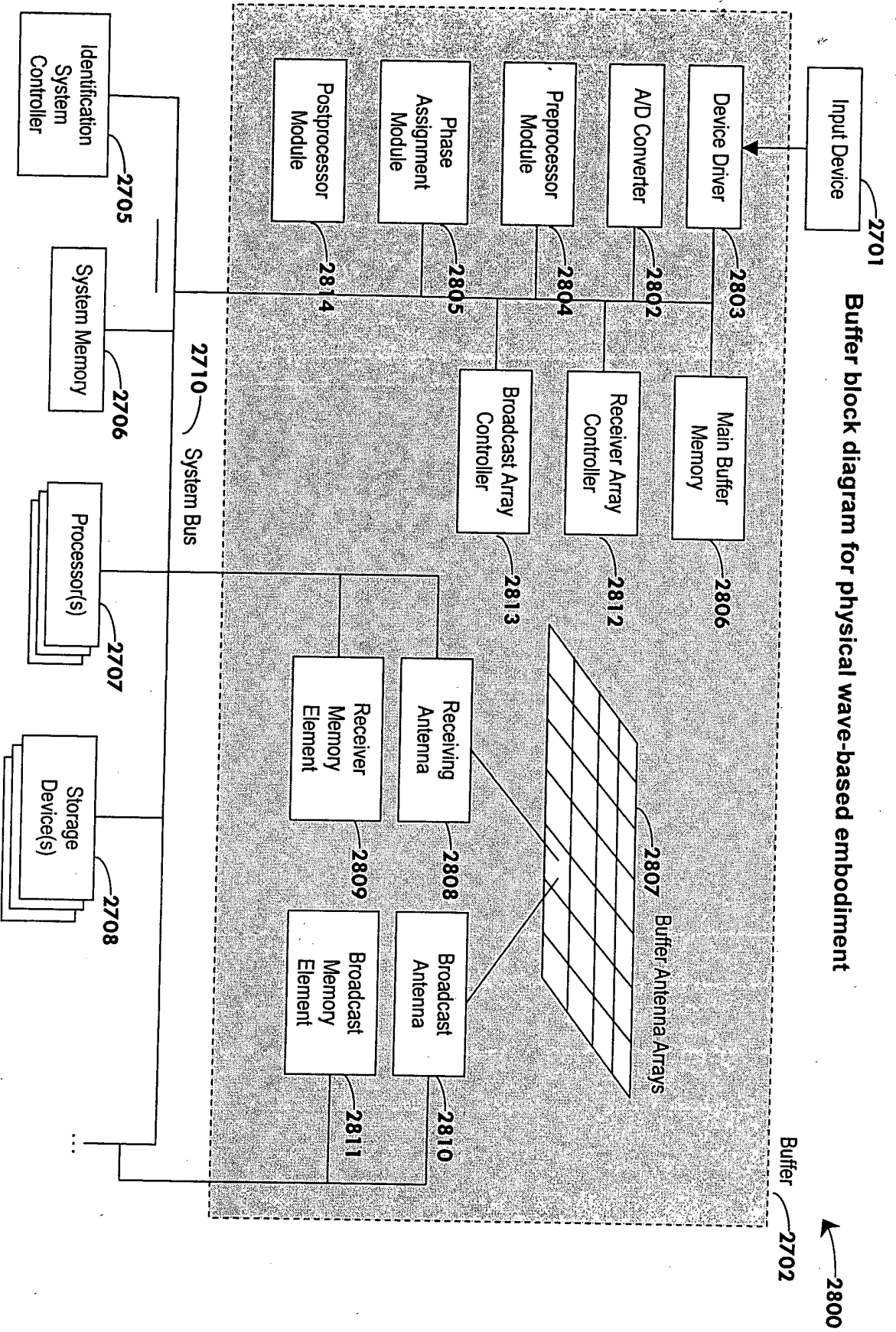
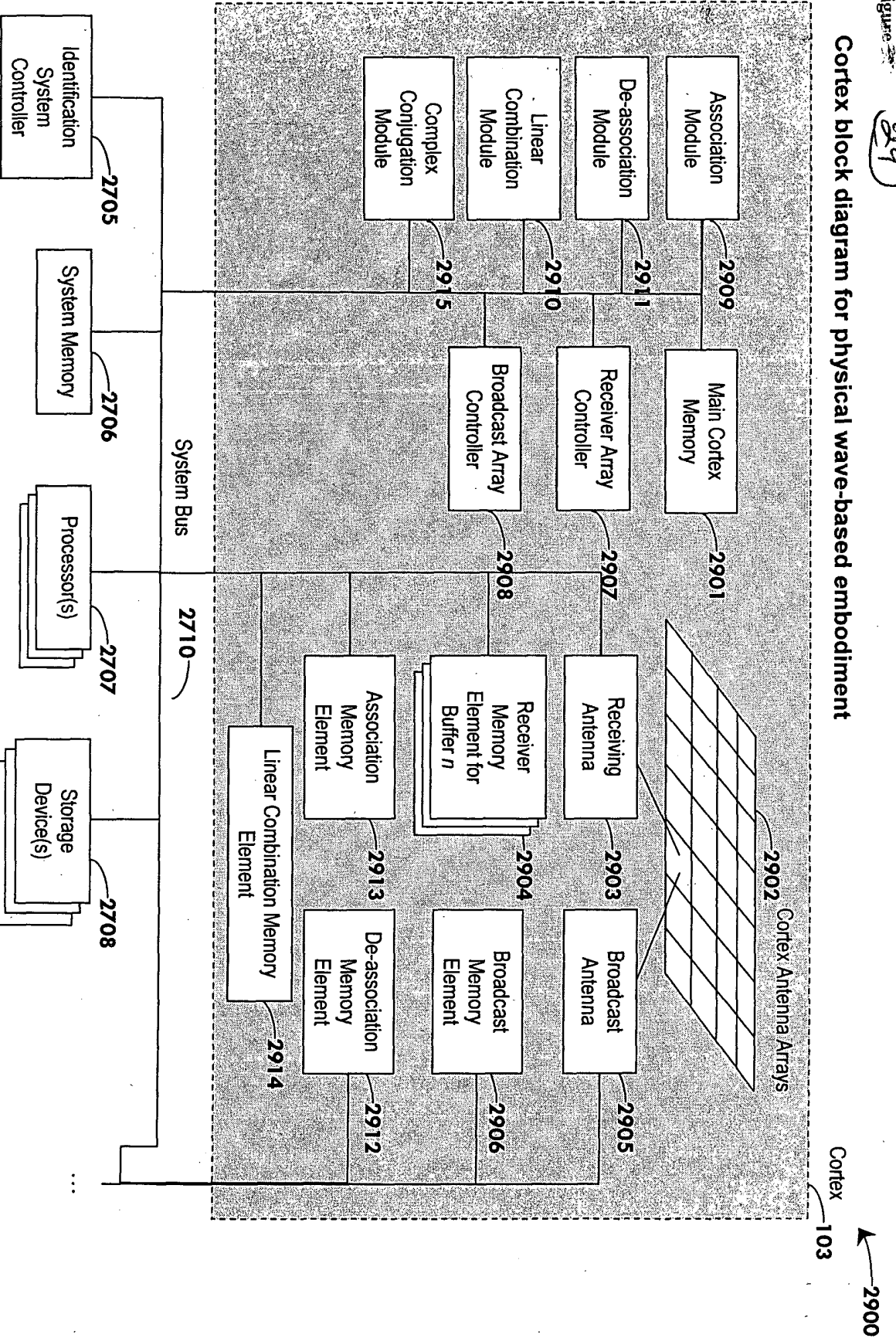


Figure 29

Cortex block diagram for physical wave-based embodiment



Figure

30

Buffer block diagram for software-based embodiment

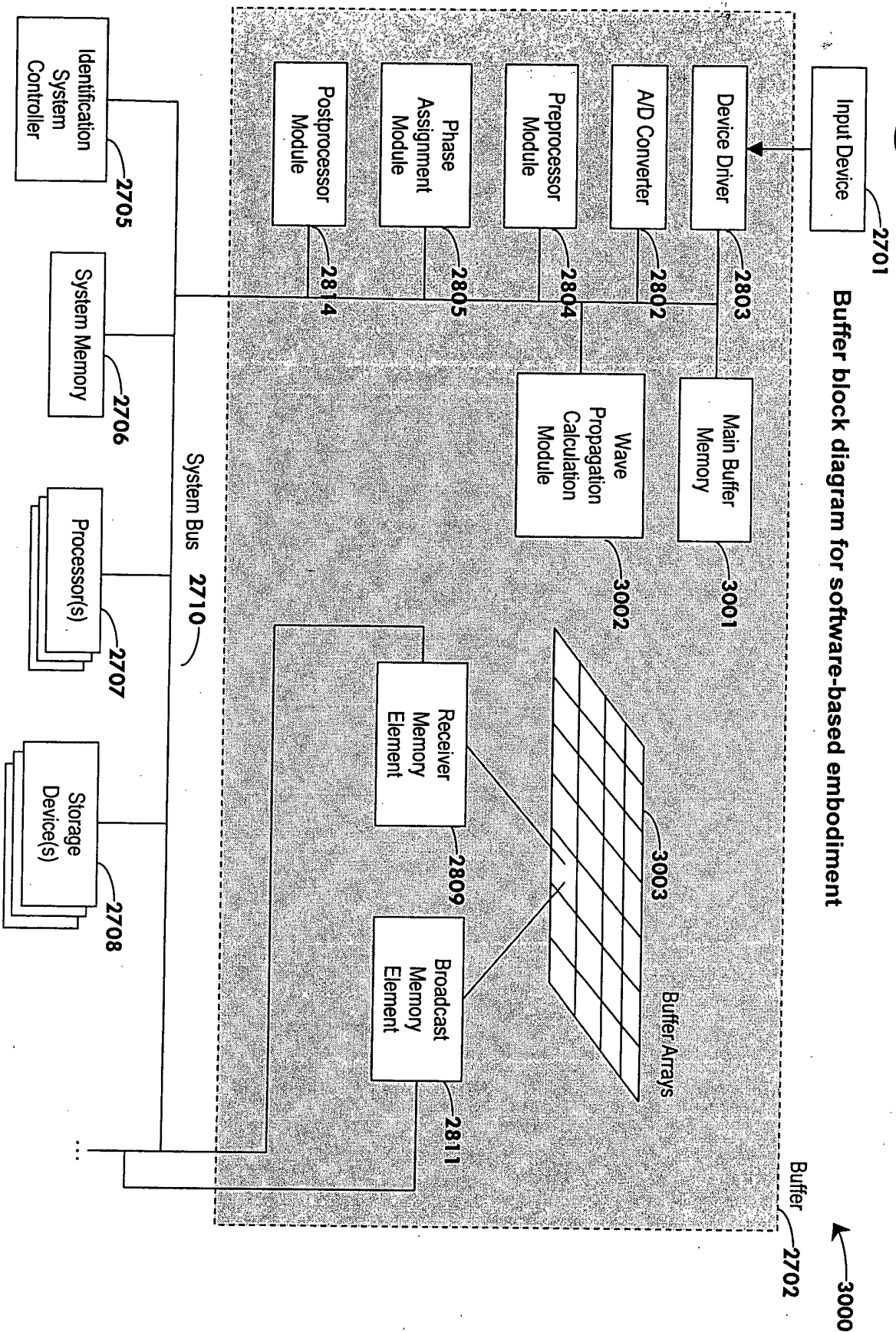


Figure (31)

Cortex block diagram for software-based embodiment

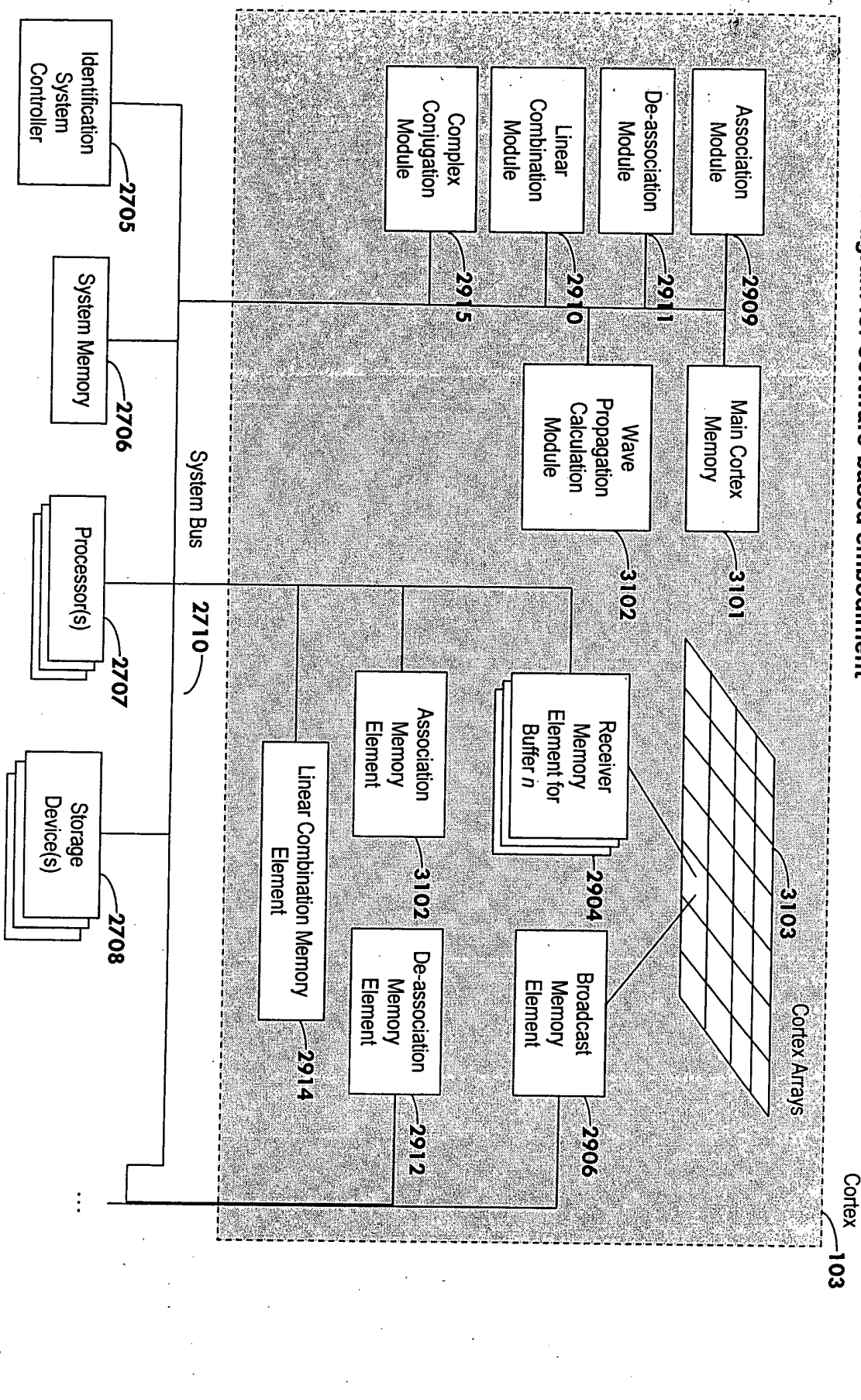


Figure 32

32

Input Device

2701

Buffer block diagram for hardwired circuitry-based embodiment

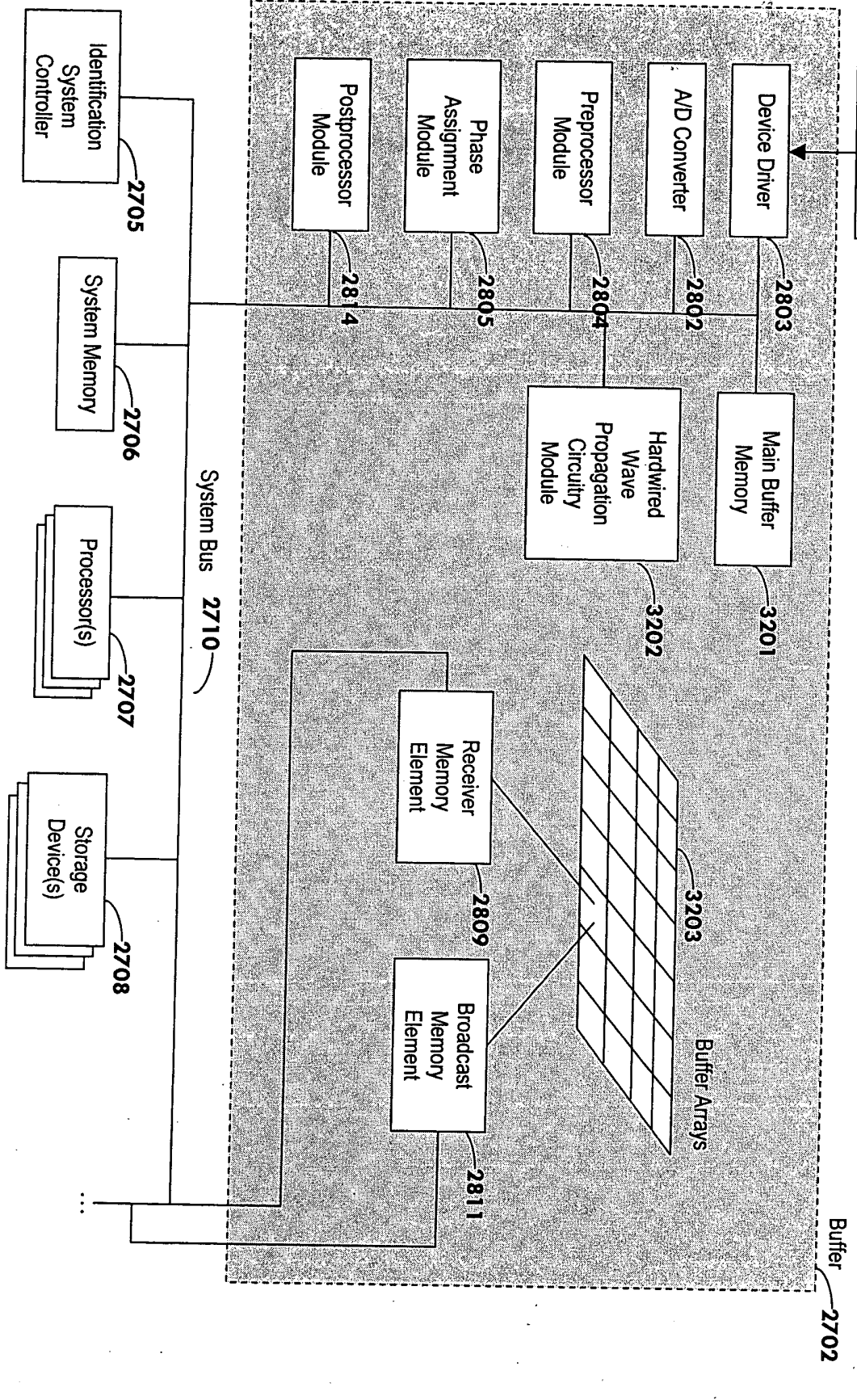


Figure 33

Cortex block diagram for hardwired circuitry-based embodiment

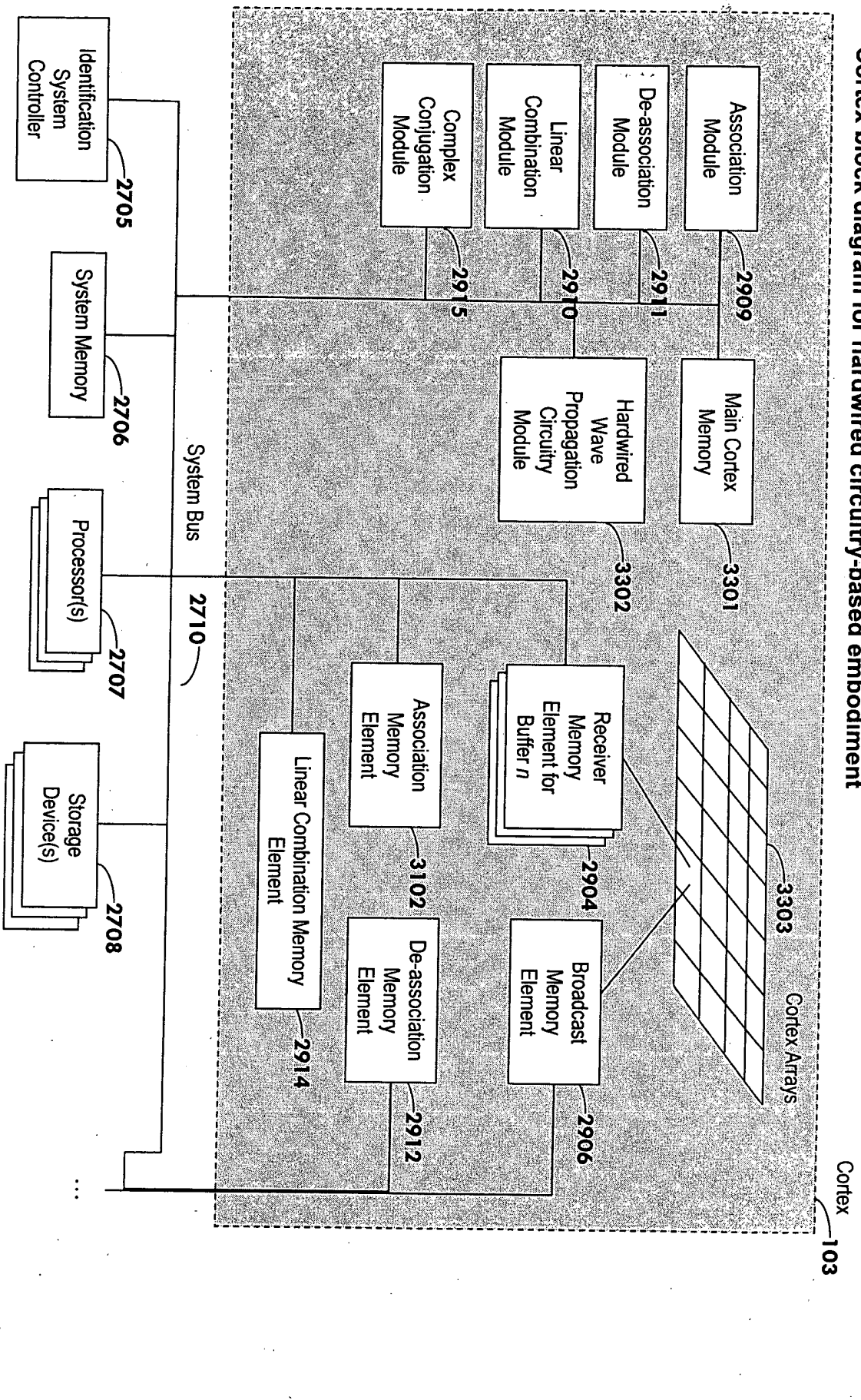


Figure 35

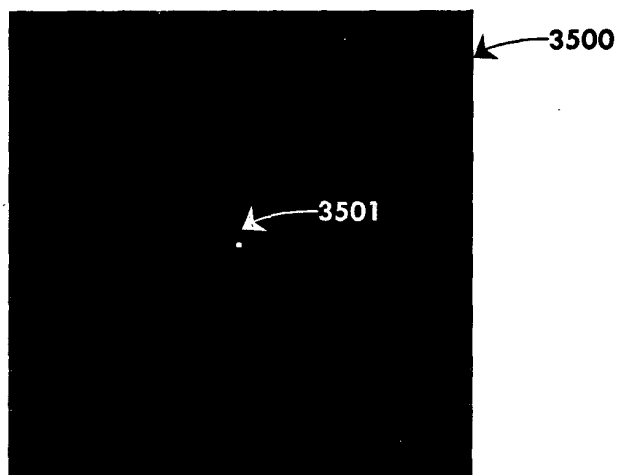


Figure 36

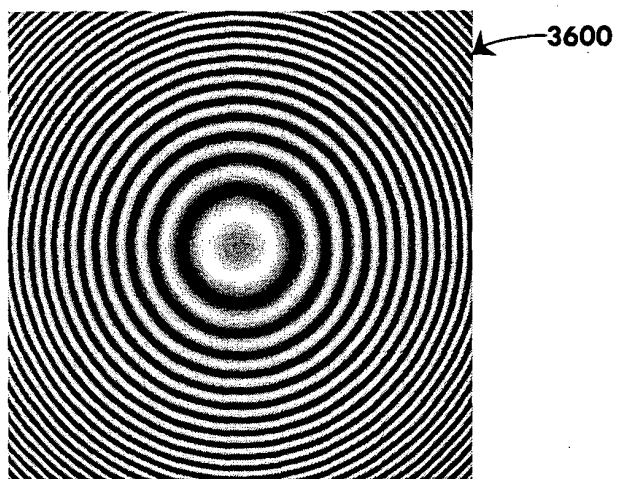


Figure 37

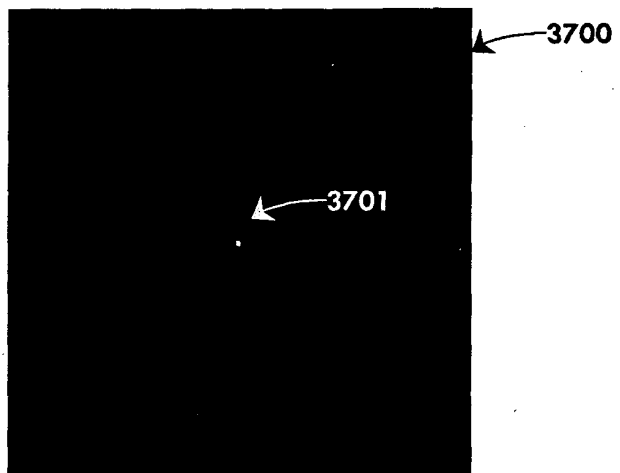


Figure 38



3800

Figure 39



3900

Figure 40



4000

Figure 41

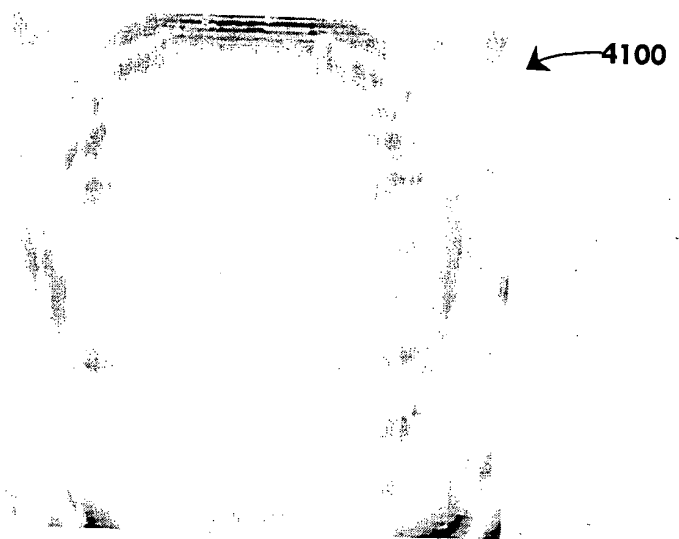


Figure 42

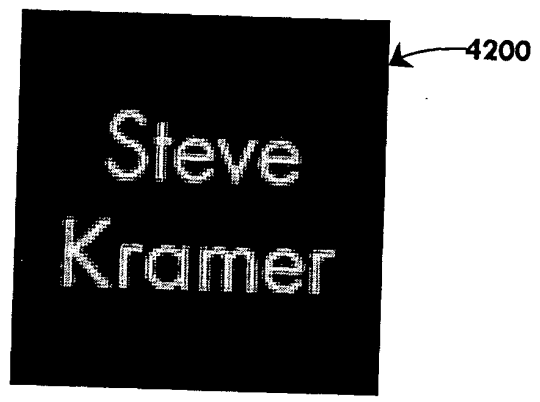
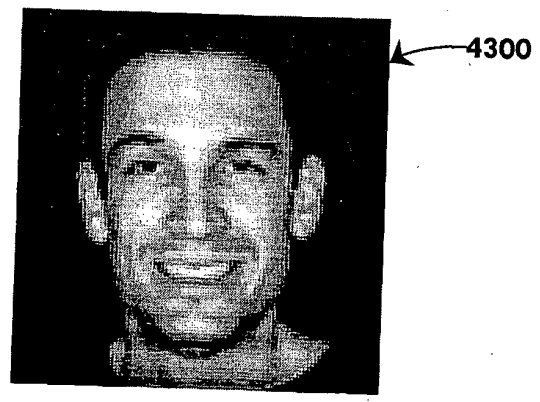
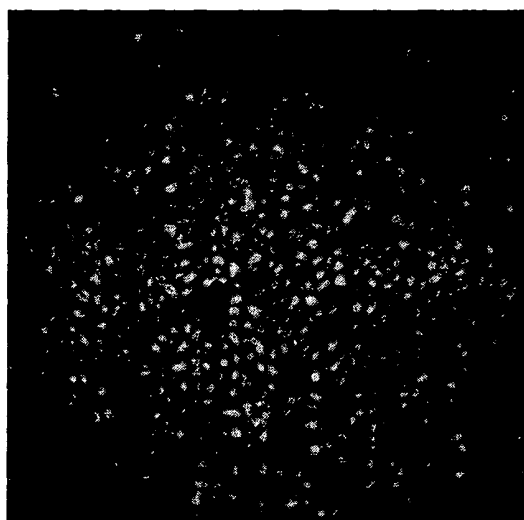


Figure 43



Figure

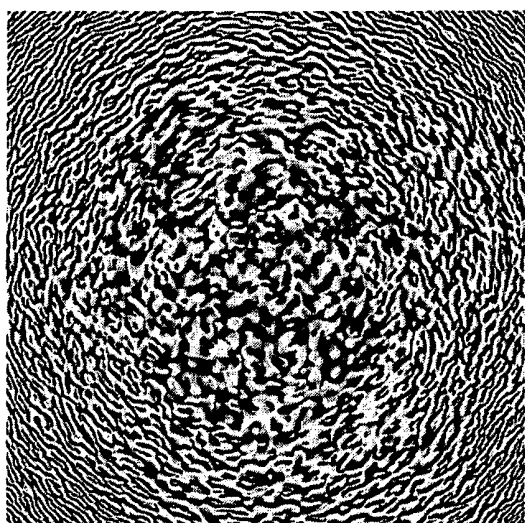
44



4400

Figure

45



4500

Figure

46



4600

Figure 47^a



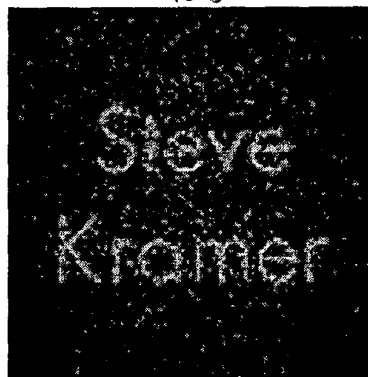
4700

Figure 48^a



4800

Figure 48^b



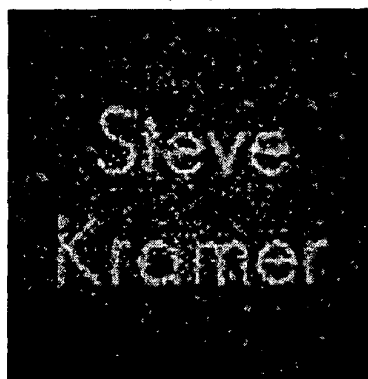
4801

Figure 49^a



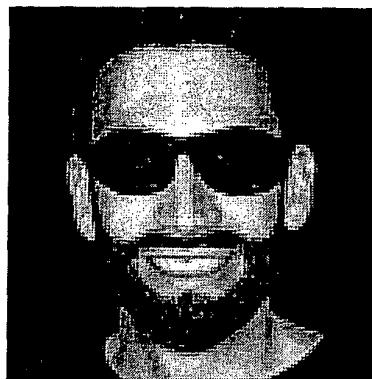
4900

Figure 49^b



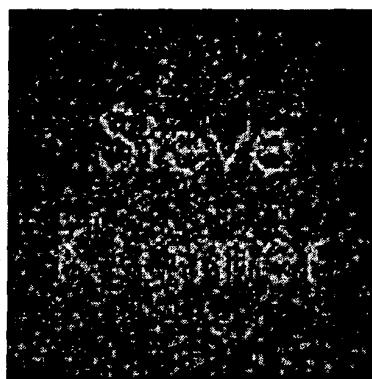
4901

Figure 50a



5000

Figure 50b



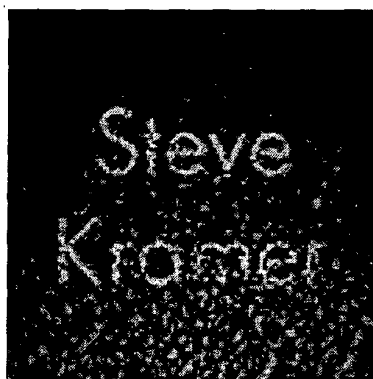
5001

Figure 51a



5100

Figure 51b



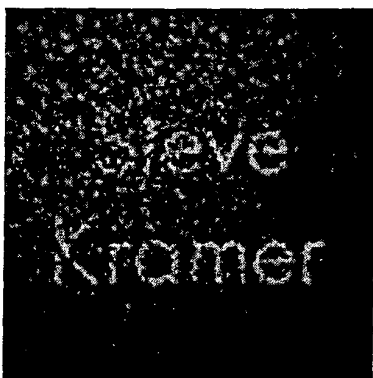
5101

Figure 52a



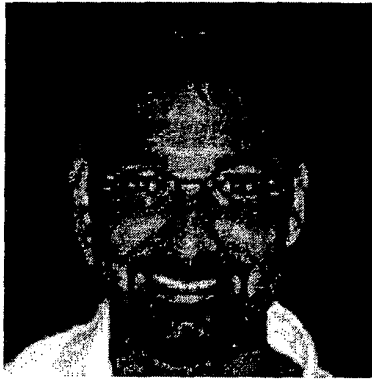
5200

Figure 52b



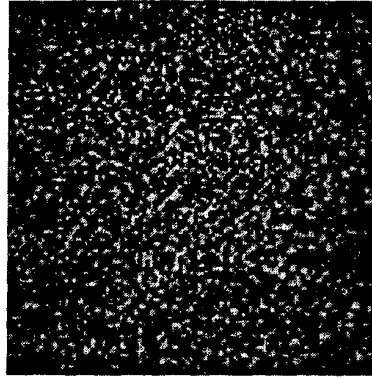
5201

Figure 53a



5300

Figure 53b



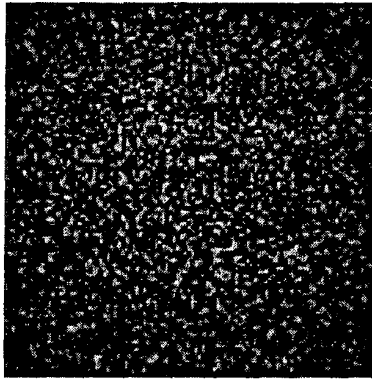
5301

Figure 54a



5400

Figure 54b



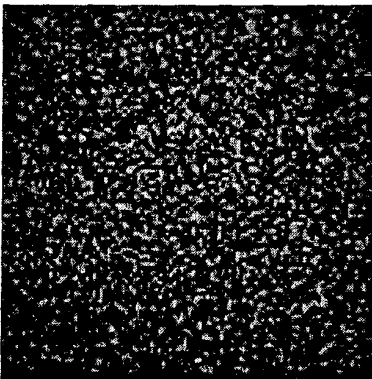
5401

Figure 55a



5500

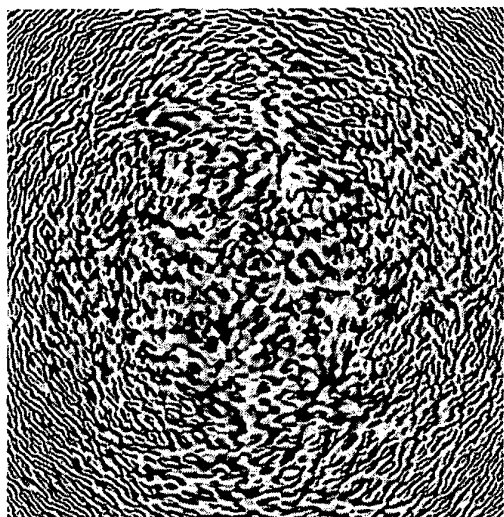
Figure 55b



5501

96

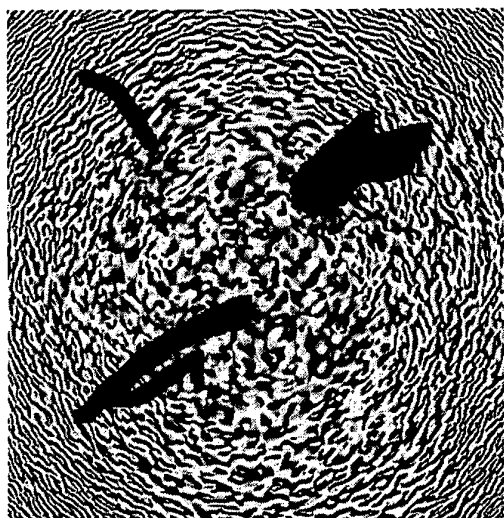
Figure



5600

Figure

57



5700

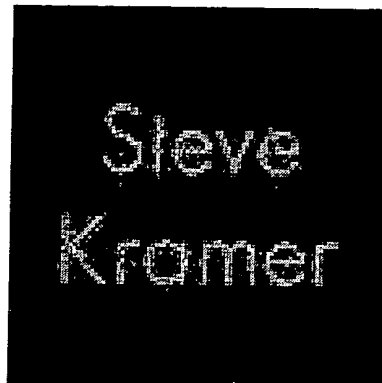
58a

Figure



3800

Figure 58b



5801

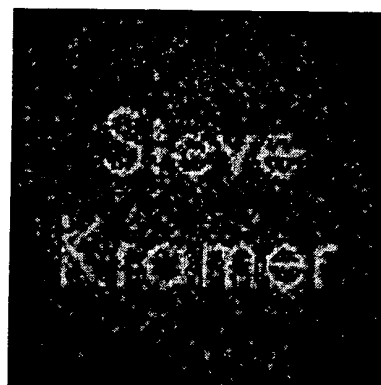
59a

Figure



4800

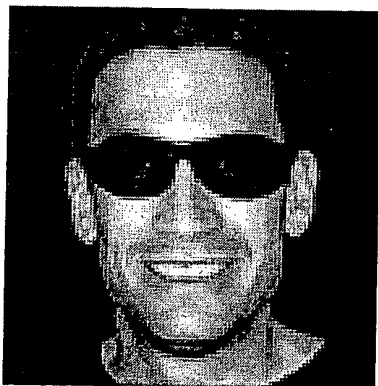
Figure 59b



5901

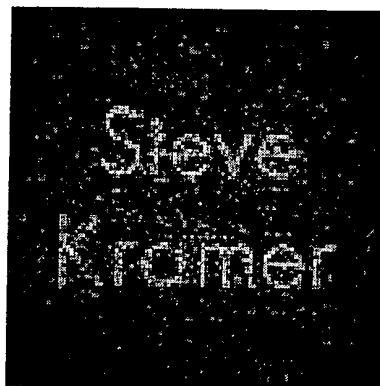
60a

Figure



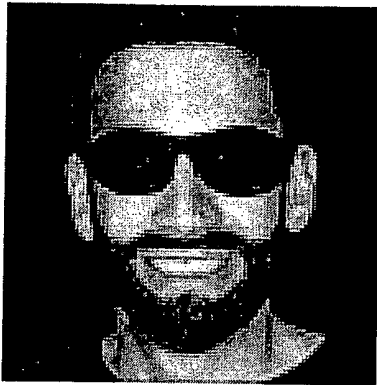
4900

Figure 60b



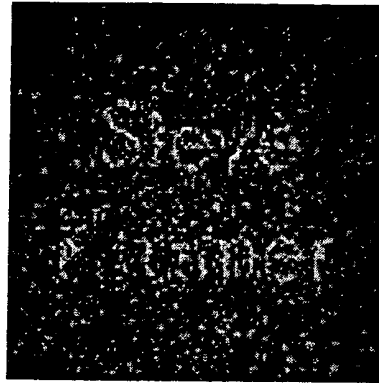
6001

Figure 61a



5000

Figure 61b



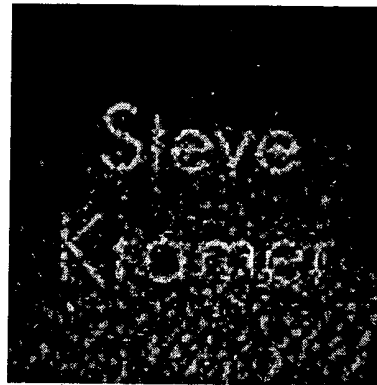
6101

Figure 62a



5100

Figure 62b



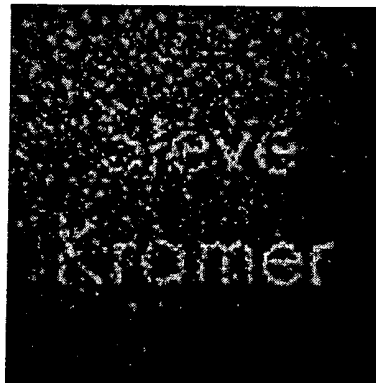
6201

Figure 63a



5200

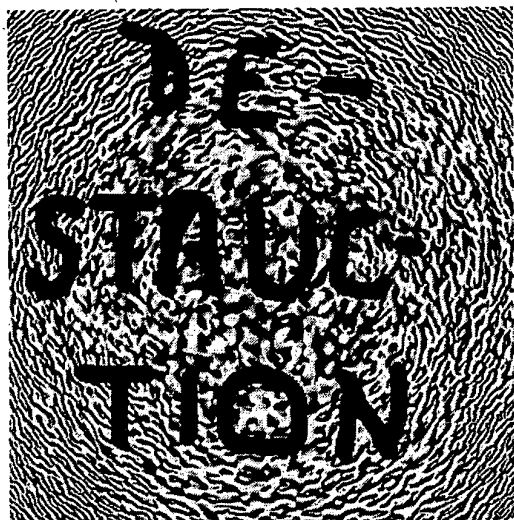
Figure 63b



6301

Figure

64



6400

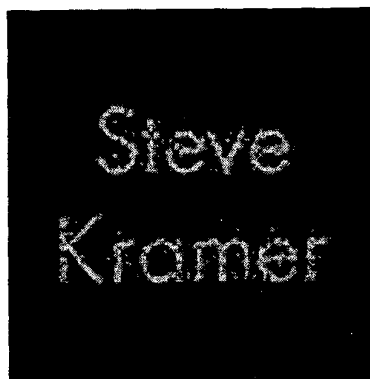
Figure

65a



3800

Figure 65b



6501

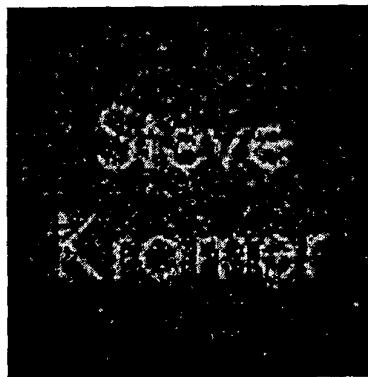
Figure

66a



4800

Figure 66b



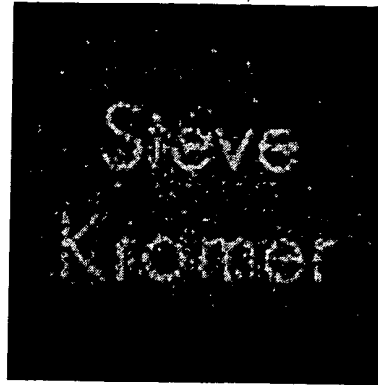
6601

Figure 67a



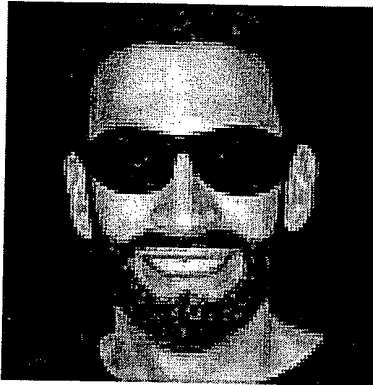
4900

Figure 67b



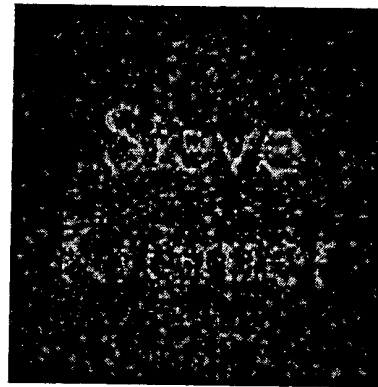
6701

Figure 68a



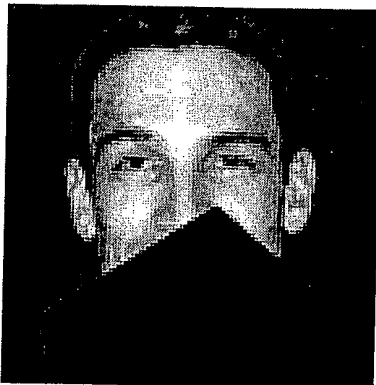
5000

Figure 68b



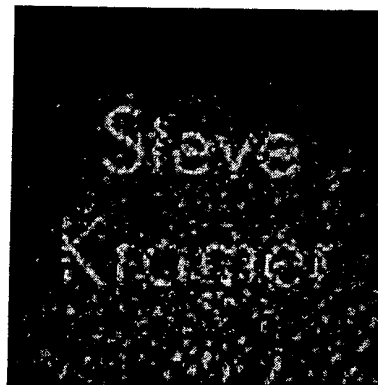
6801

Figure 69a



5100

Figure 69b



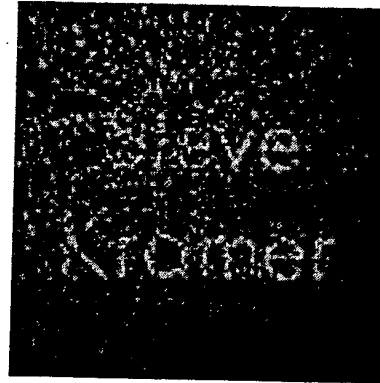
6901

Figure 70a



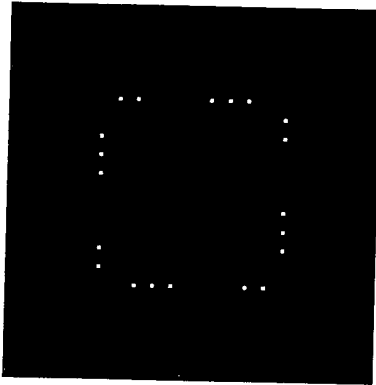
5200

Figure 70b



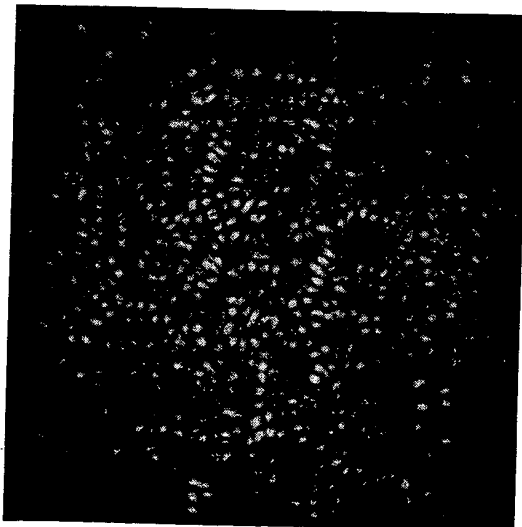
7001

Figure 71



7100

Figure 72



7200

Figure 73

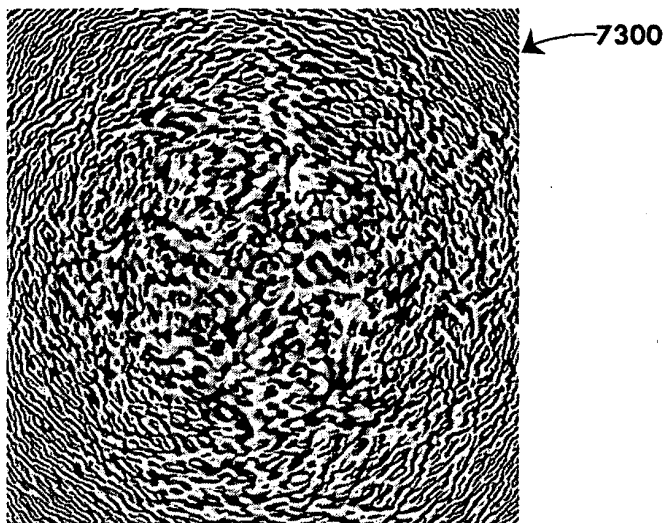


Figure 74a

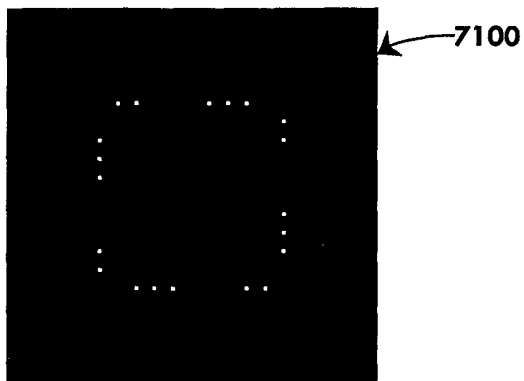


Figure 74b

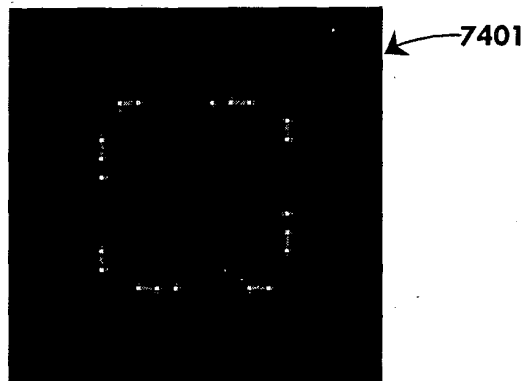


Figure 75a

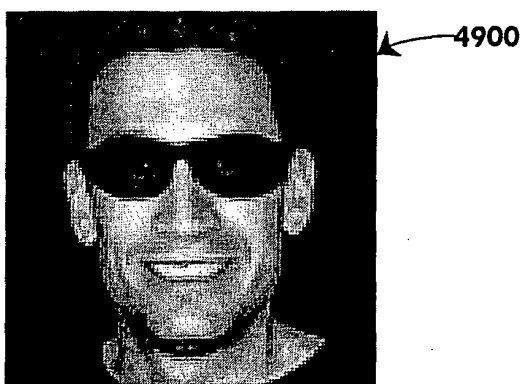
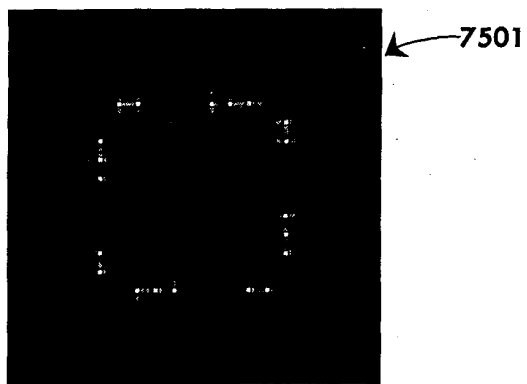


Figure 75b

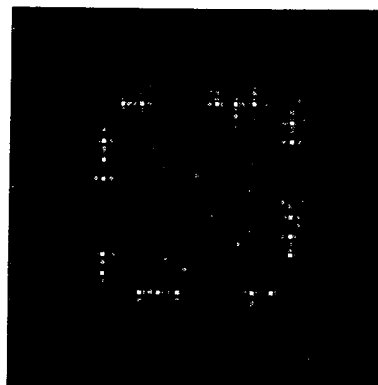


76a
Figure 76a



5000

Figure 76b



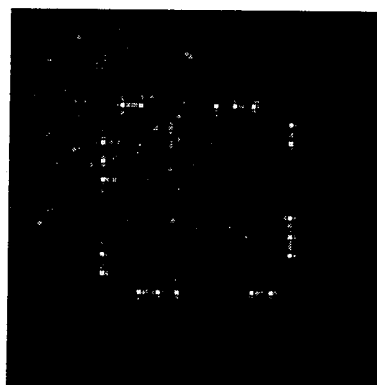
7601

77a
Figure 77a



5200

Figure 77b



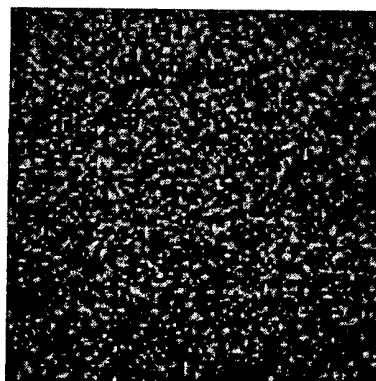
7701

78a
Figure 78a



5400

Figure 78b



7801

Figure 79

IIP Reconstruction (Steve K.)

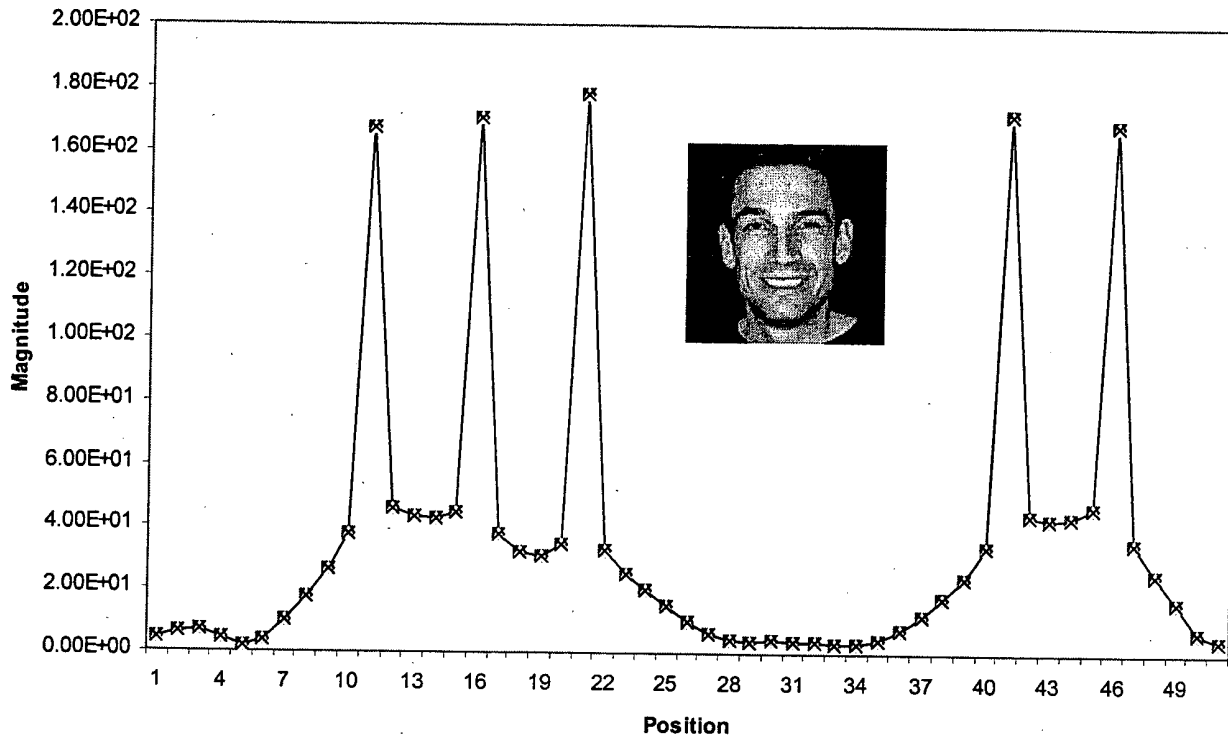


Figure 80

IIP Reconstruction (Steve K. 1)
4.1% obscured

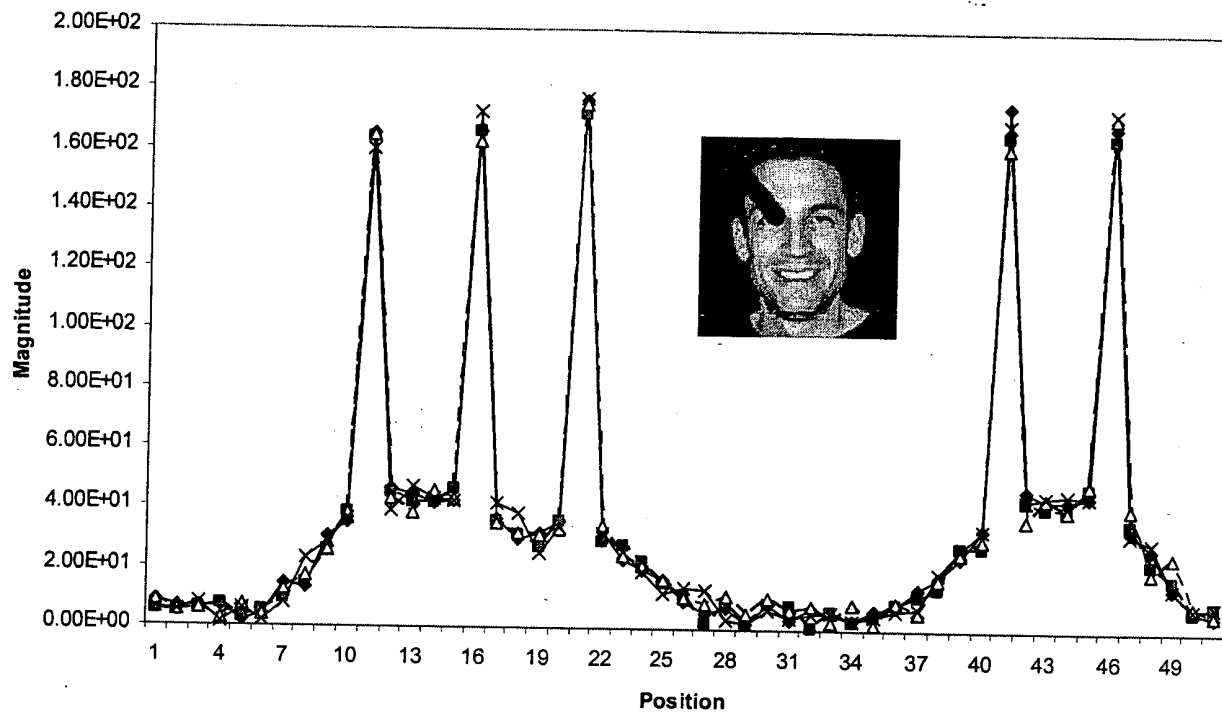


Figure 13
81

IIP Reconstruction (Stev. K. 7)
33.4% obscured

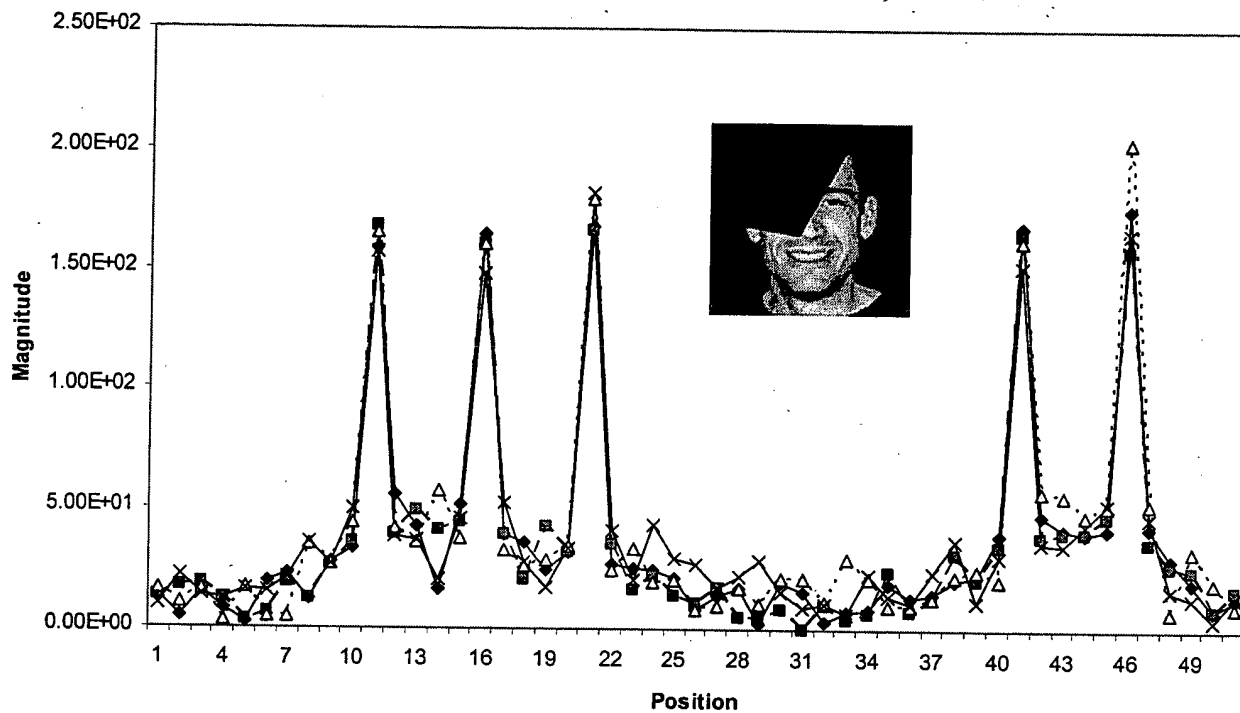


Figure 82

IIP Reconstruction as a Function of Degree of Obscurity

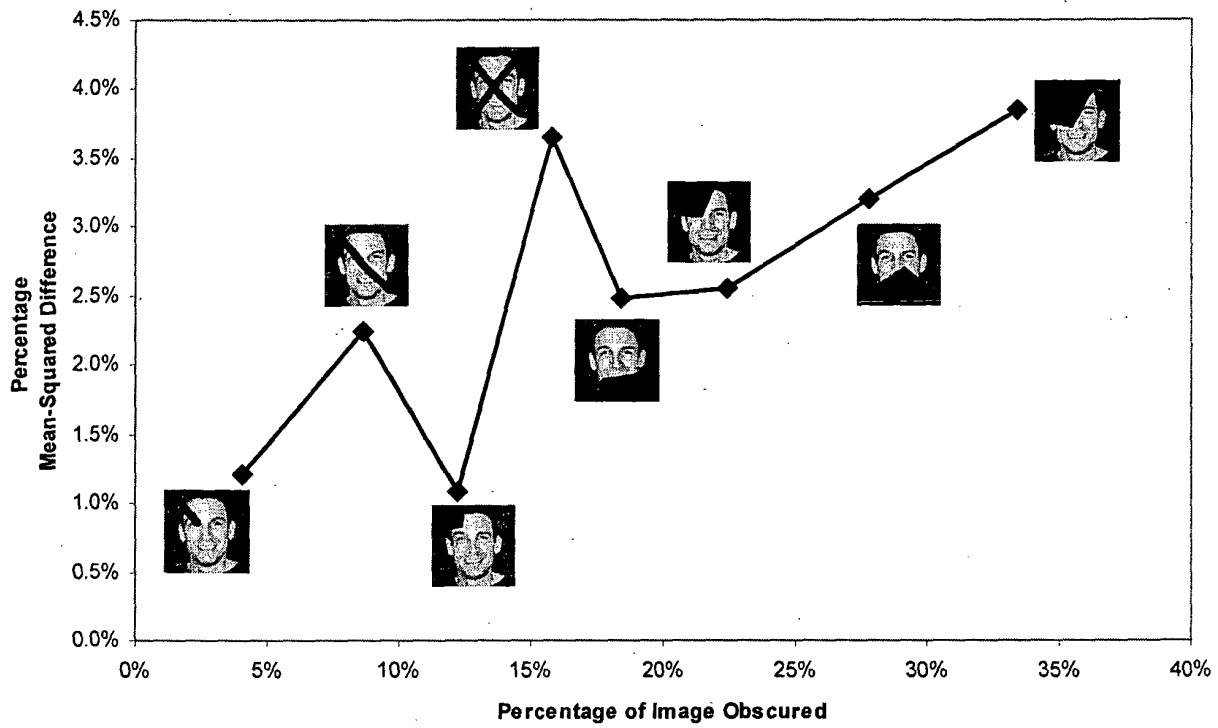


Figure 83a

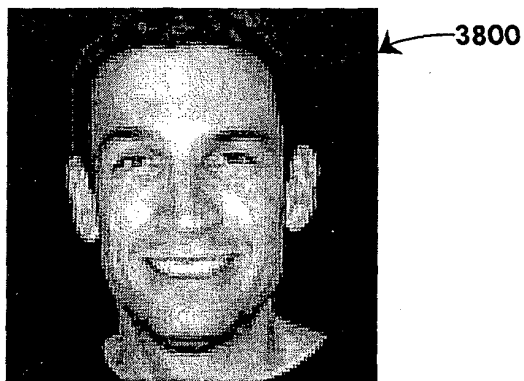


Figure 83b

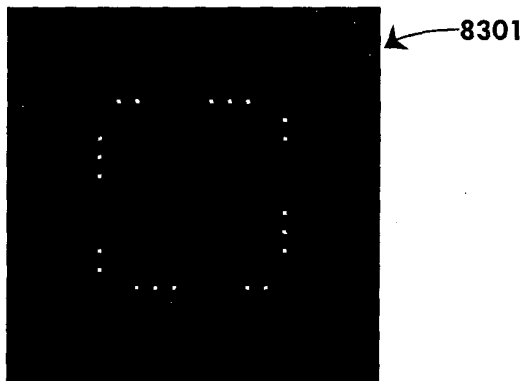
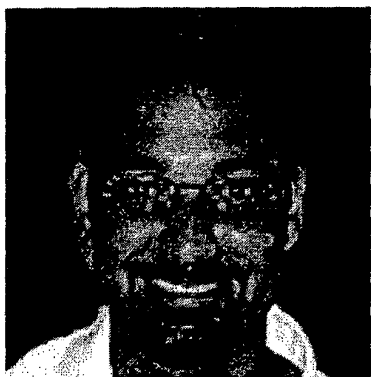


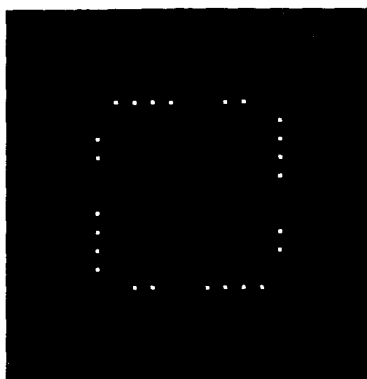
Figure 84a

84a



5300

Figure 84b



8401

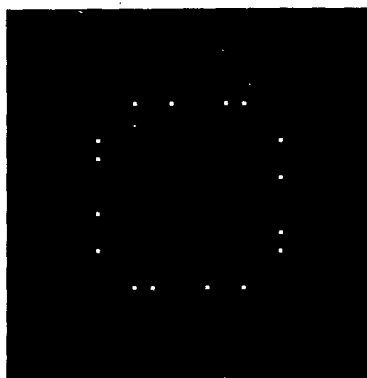
Figure 85a

85a



8500

Figure 85b



8501

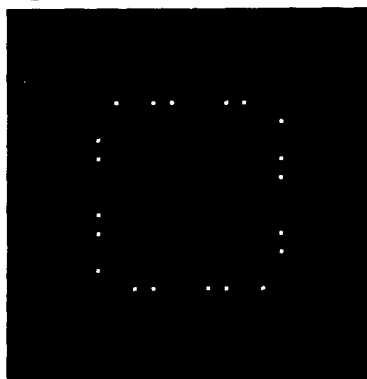
Figure 86a

86a



5400

Figure 86b



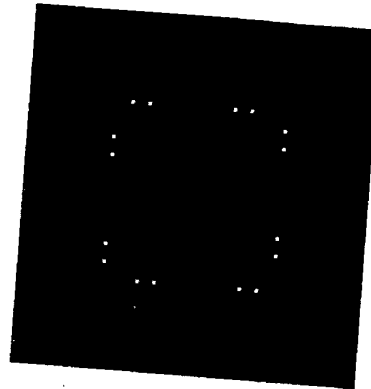
8601

Figure 87a



5500

Figure 87b



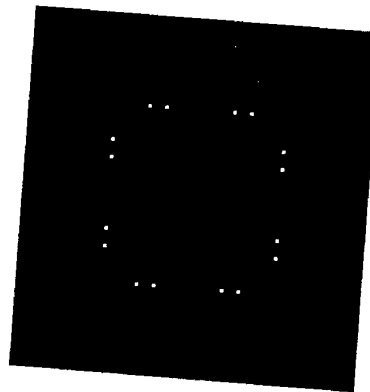
8701

Figure 88a



8800

Figure 88b



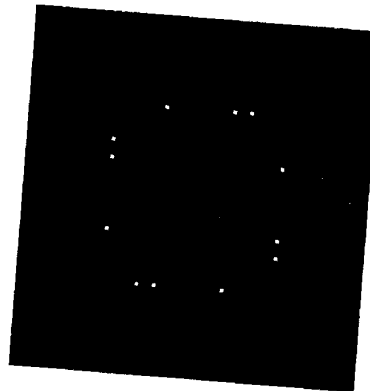
8801

Figure 89a



8900

Figure 89b



8901

Figure 90

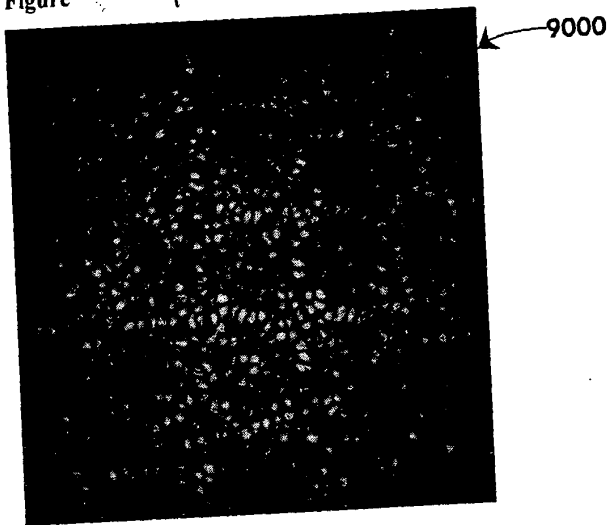


Figure 91

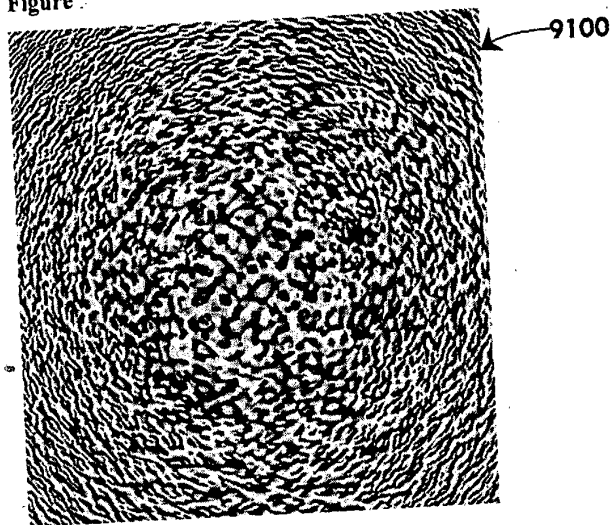


Figure 92a

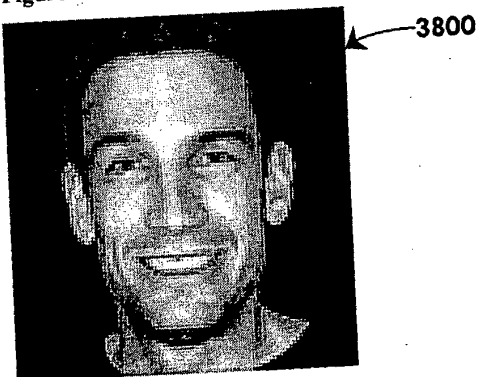


Figure 92b

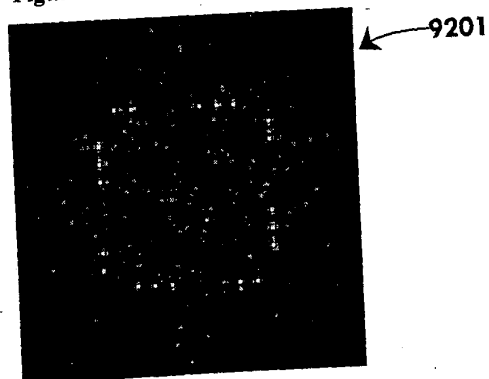
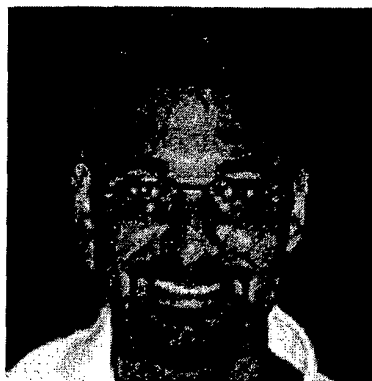
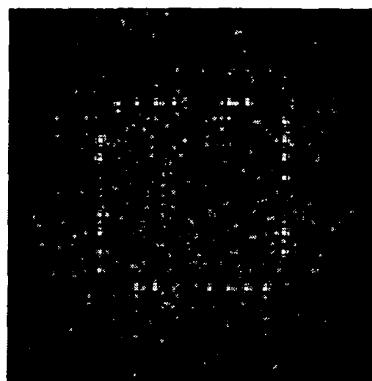


Figure 93a



5300

Figure 93b



9301

Figure 94a



8500

Figure 94b



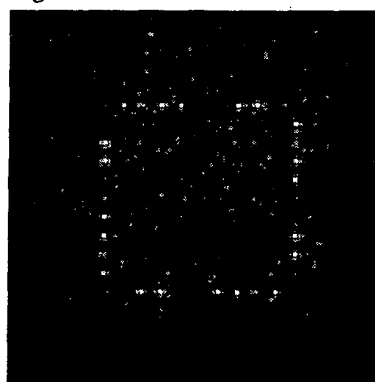
9401

Figure 95a



5400

Figure 95b



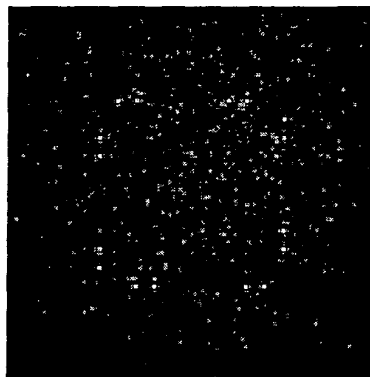
9501

Figure 96a



← 5500

Figure 96b



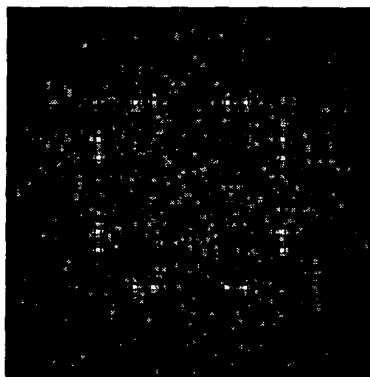
← 9601

Figure 97a



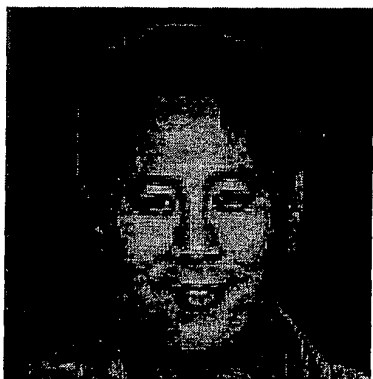
← 8800

Figure 97b



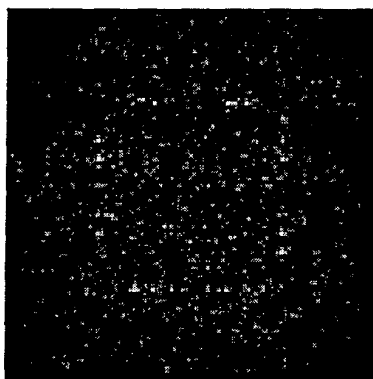
← 9701

Figure 98a



← 8900

Figure 98b



← 9801

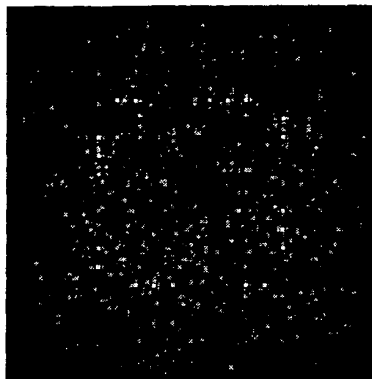
Figure

99a



4800

Figure 99b



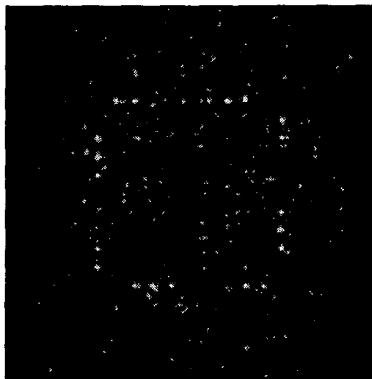
Figure

100a



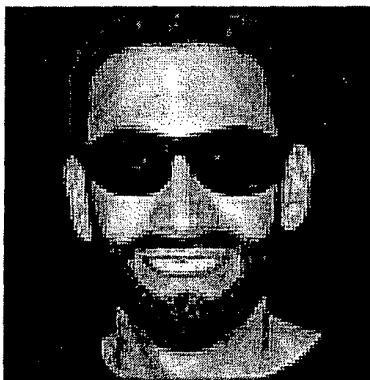
4900

Figure 100b



Figure

101a



5000

Figure 101b

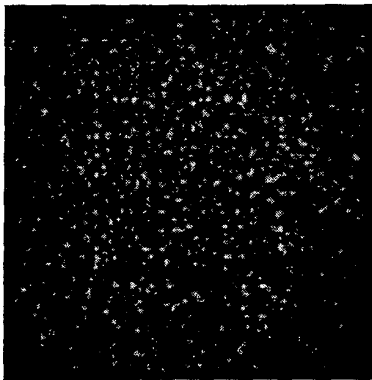
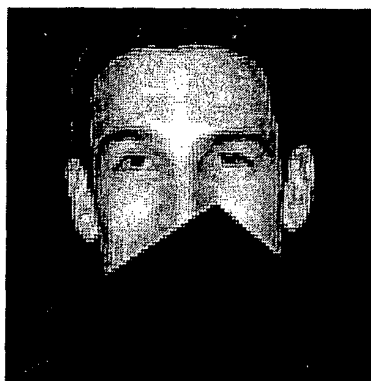


Figure 102a



5100

Figure 102b

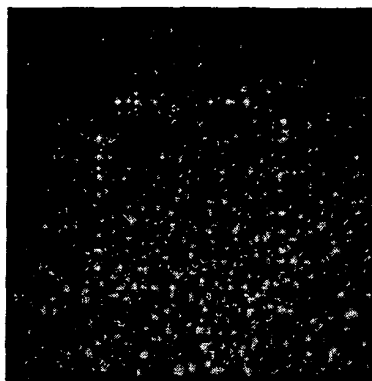
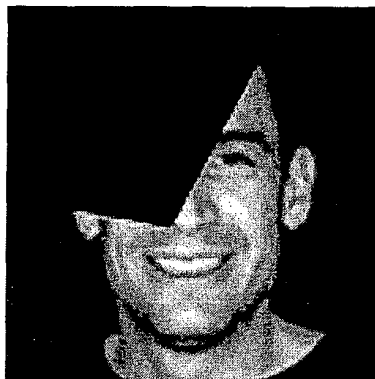


Figure 103a



5200

Figure 103b

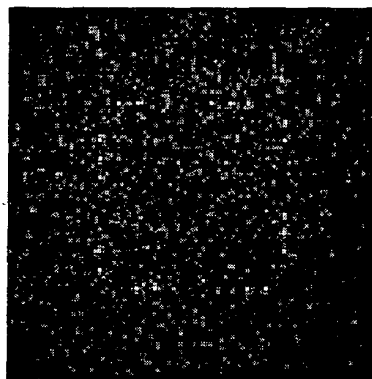


Figure 104a



10400

Figure 104b

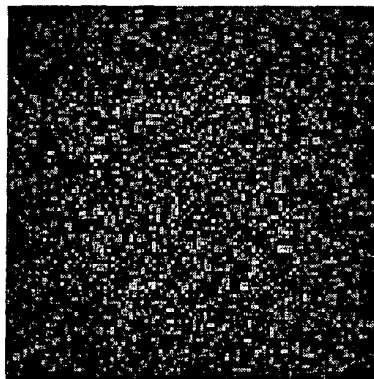
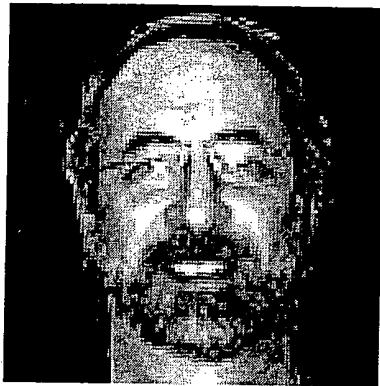


Figure 105



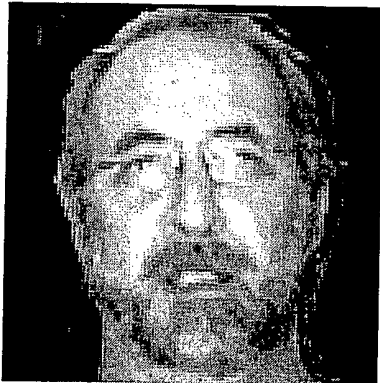
10500

Figure 106



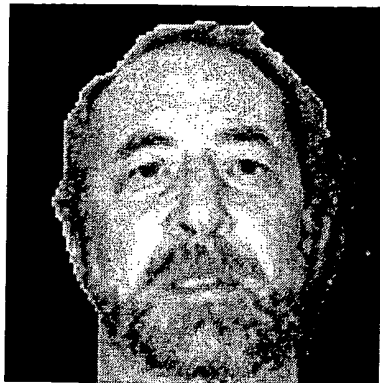
10501

Figure 107



10502

Figure 108



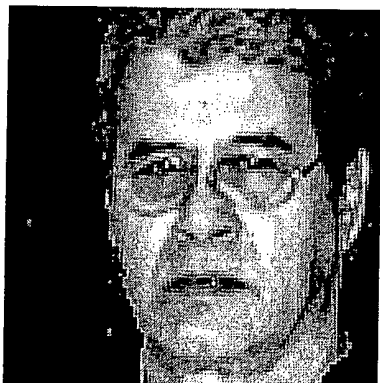
10503

Figure 109



10504

Figure 110



11000

Figure 111



← 11100

Figure 112



← 11200

Figure 113



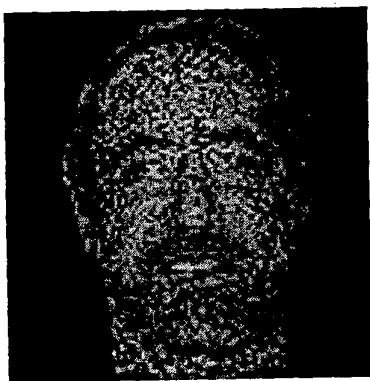
← 11300

Figure 114



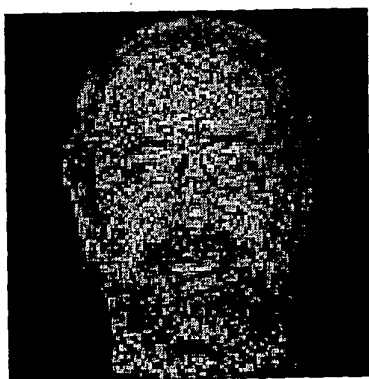
← 11400

Figure 115



← 11500

Figure 116



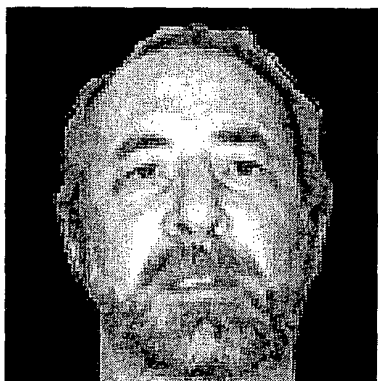
← 11600

Figure 117



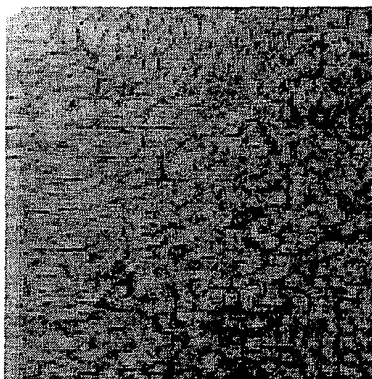
11700

Figure 118a



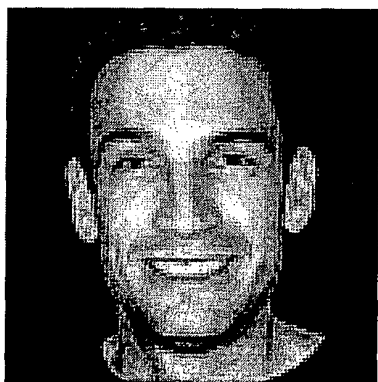
10503

Figure 118b



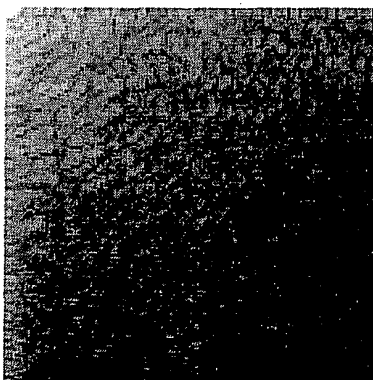
11801

Figure 119a



3800

Figure 119b



11901

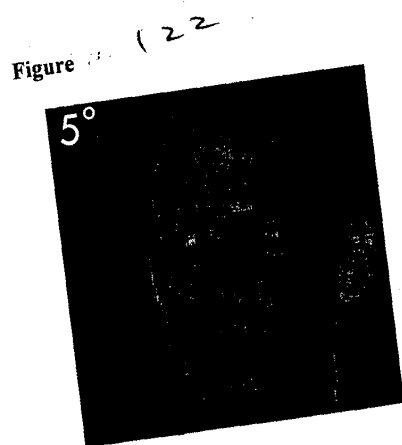
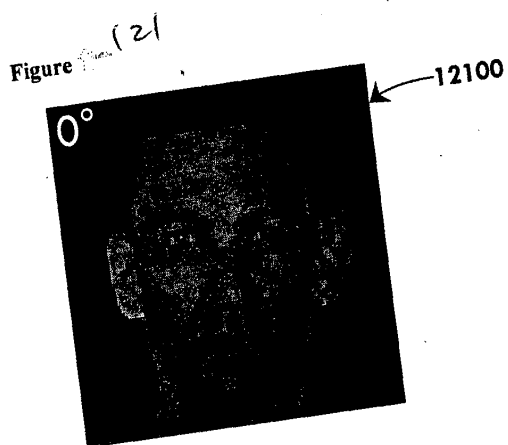
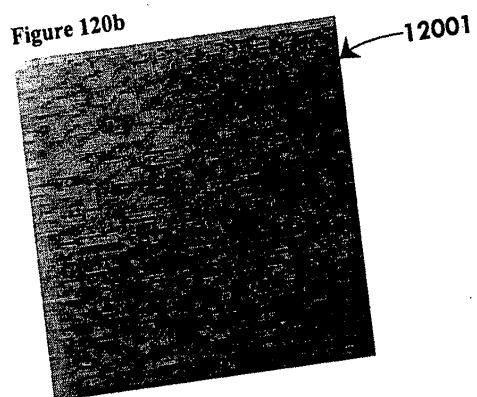
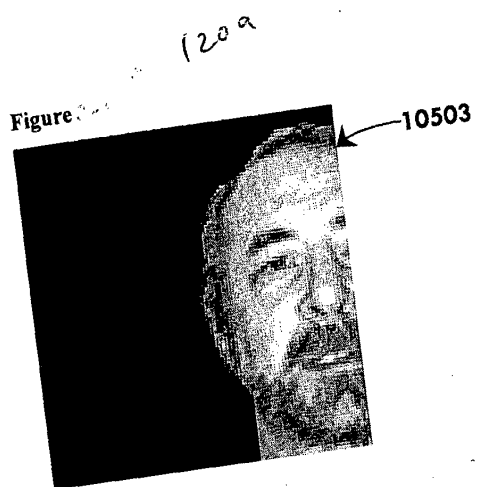


Figure 123

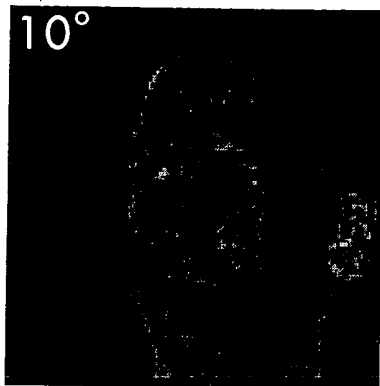


Figure 124

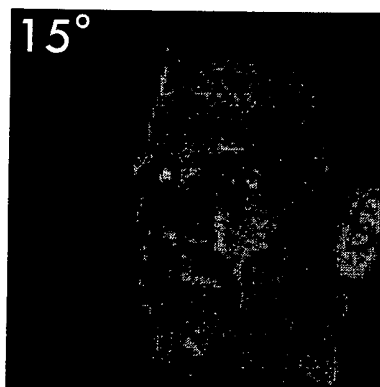


Figure 125

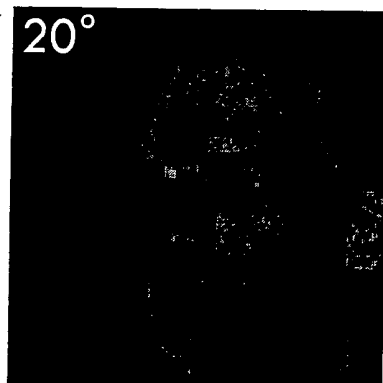


Figure 126

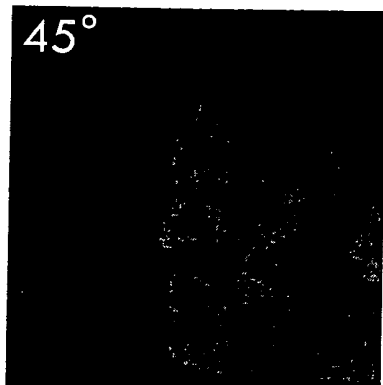
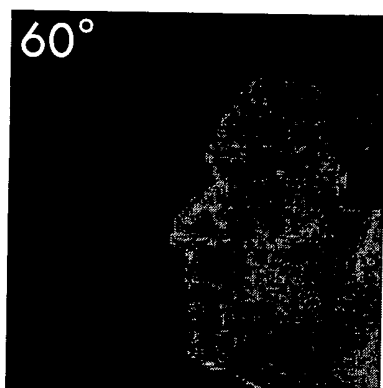


Figure 127



← 12700

Figure 128

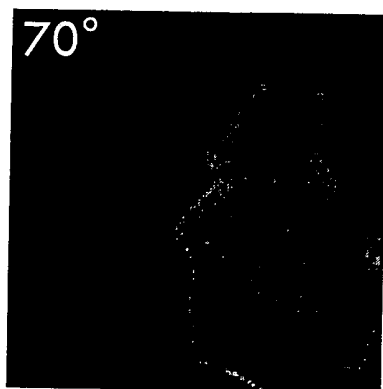


Figure 129

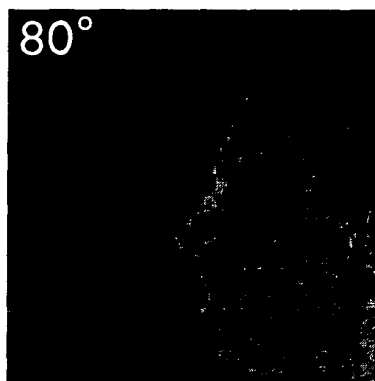
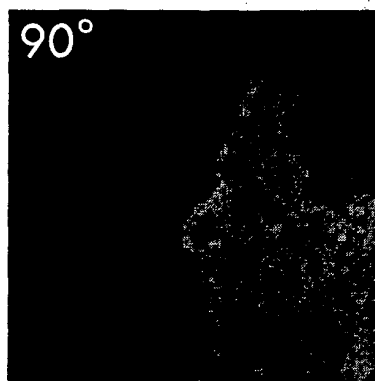


Figure 130



← 13000

Figure 131



← 13100

Figure 132

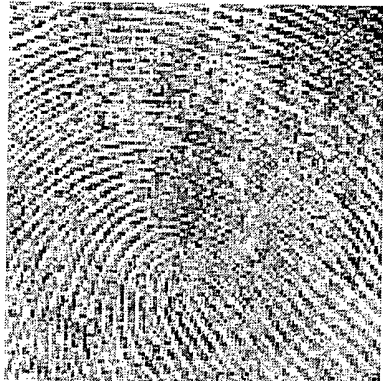


Figure 133

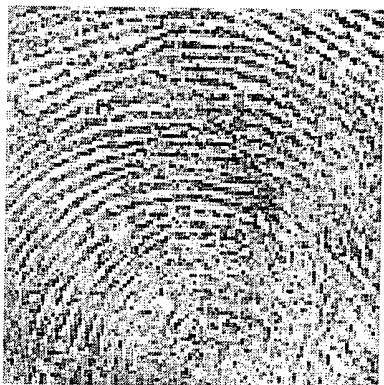


Figure 134

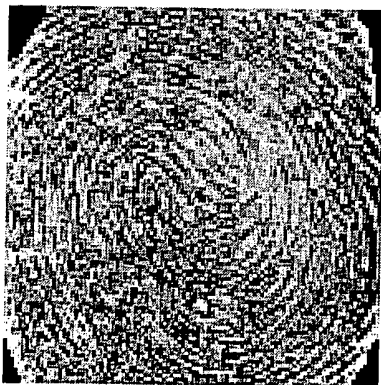


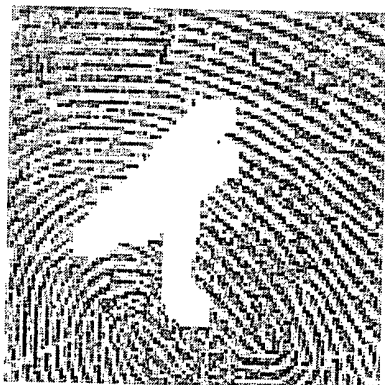
Figure 135



Figure 136

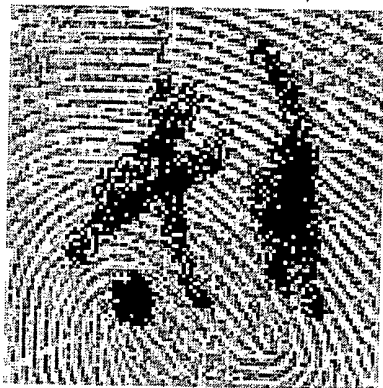


Figure 137



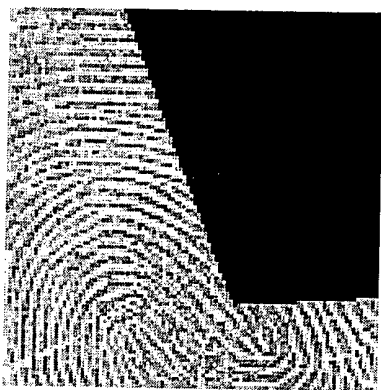
← 13700

Figure 138



← 13800

Figure 139



← 13900

Figure 140



← 14000

Figure 141

←14100

Stephen

Figure 142

Stephen

Figure 143

Stephen

Figure 144

Stephen ←14400

Figure 145

Stephen

Figure 146

Stephen ← 14600

Figure 147

Stephen

Figure 148

Stephen

Figure 149

Stephen

Figure 150

Stephen

Figure 151

Paul ← 15100

152a

Flowchart for software embodiment: Overall Control

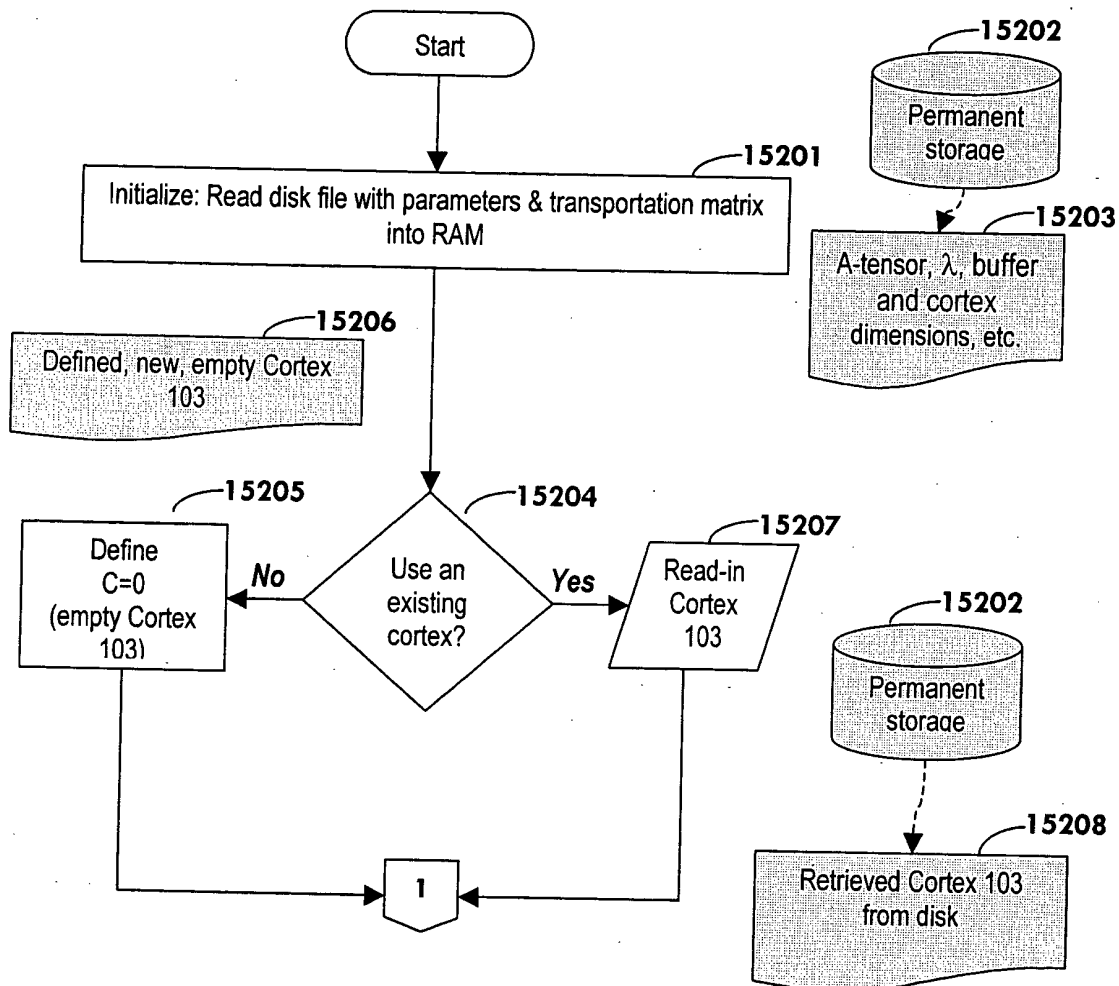
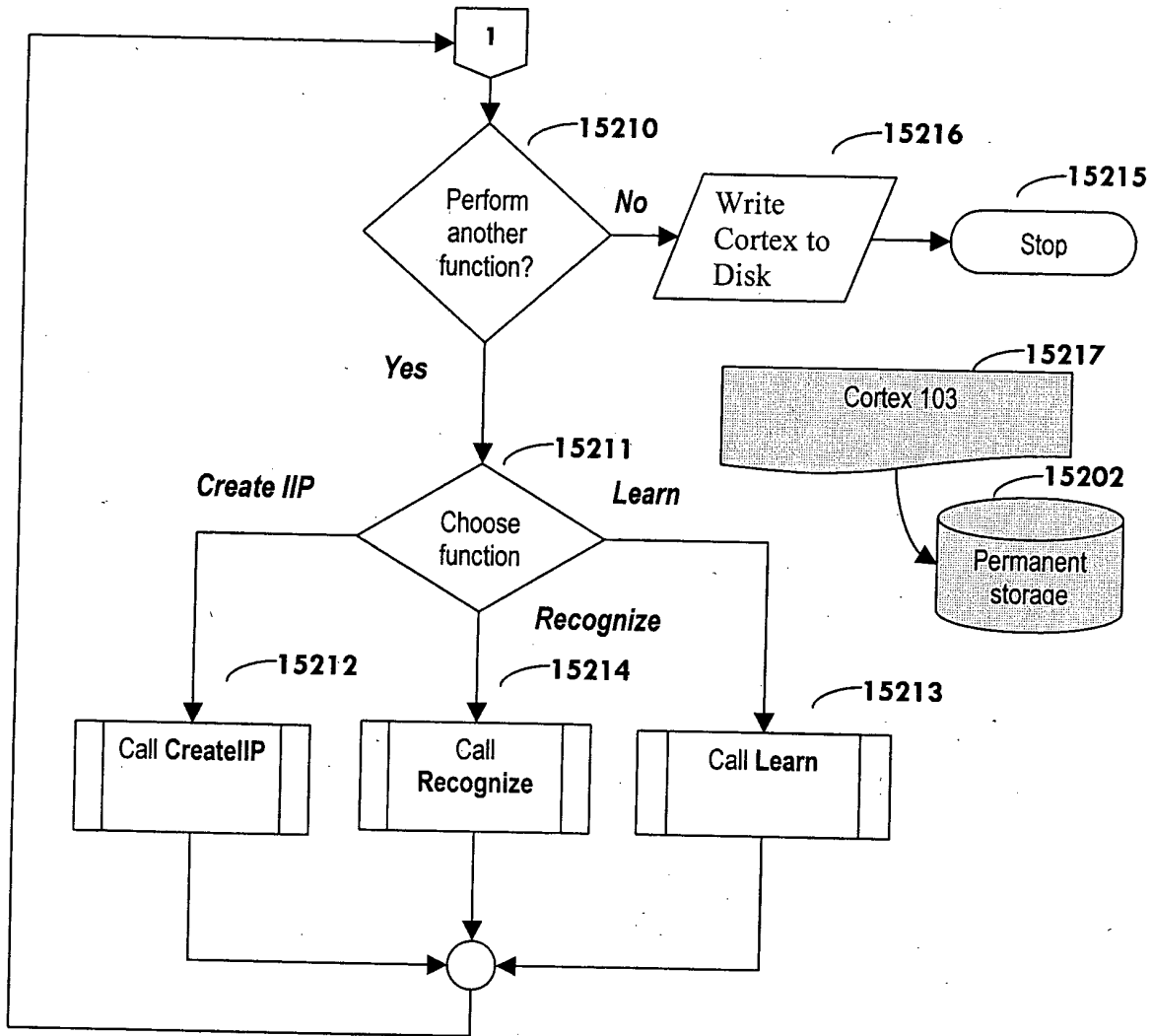


Fig. 152b

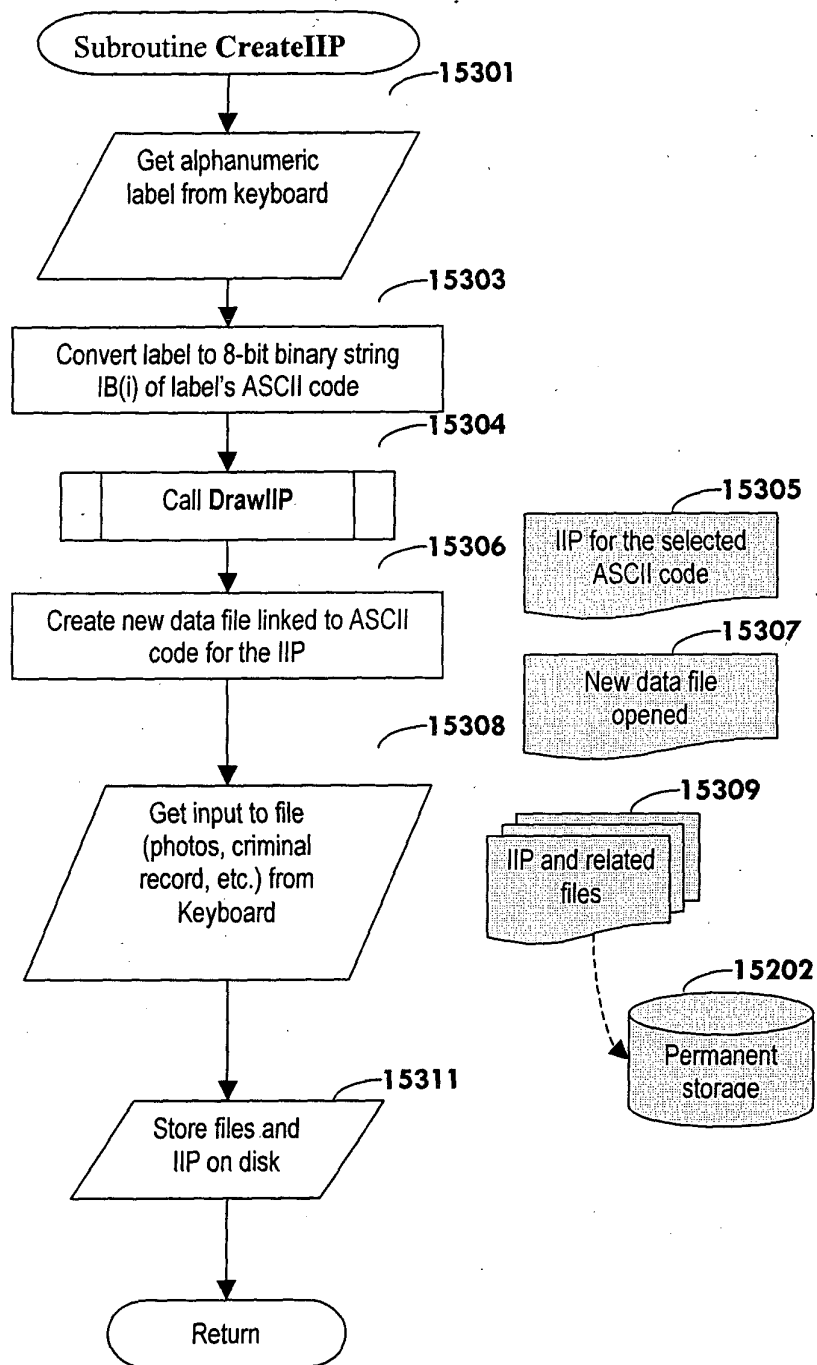
Flowchart for software embodiment: Overall Control, cont.



Figure

153

Flowchart for software embodiment: Create IIP



Figure

1549

Flowchart for software embodiment: Learn

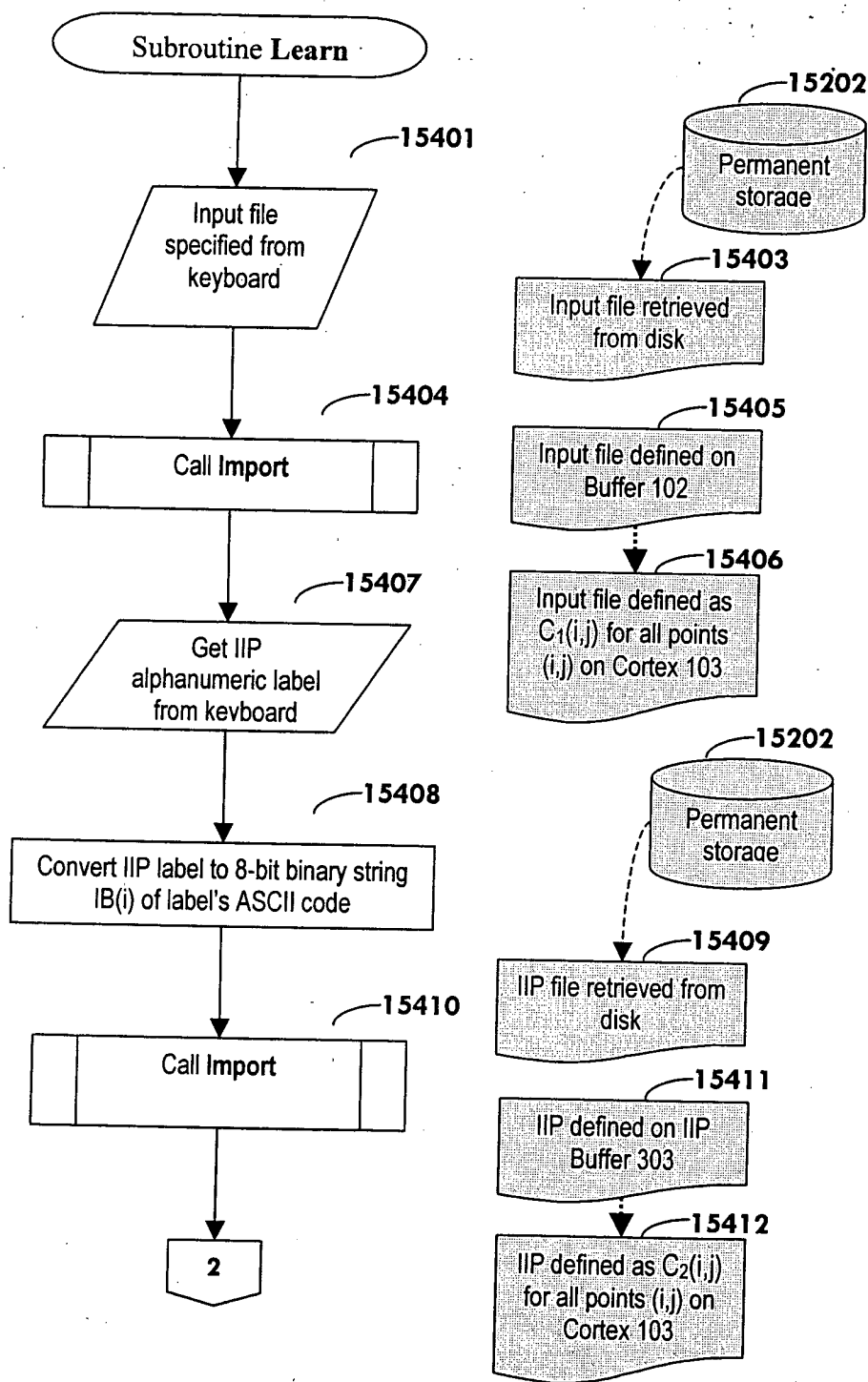
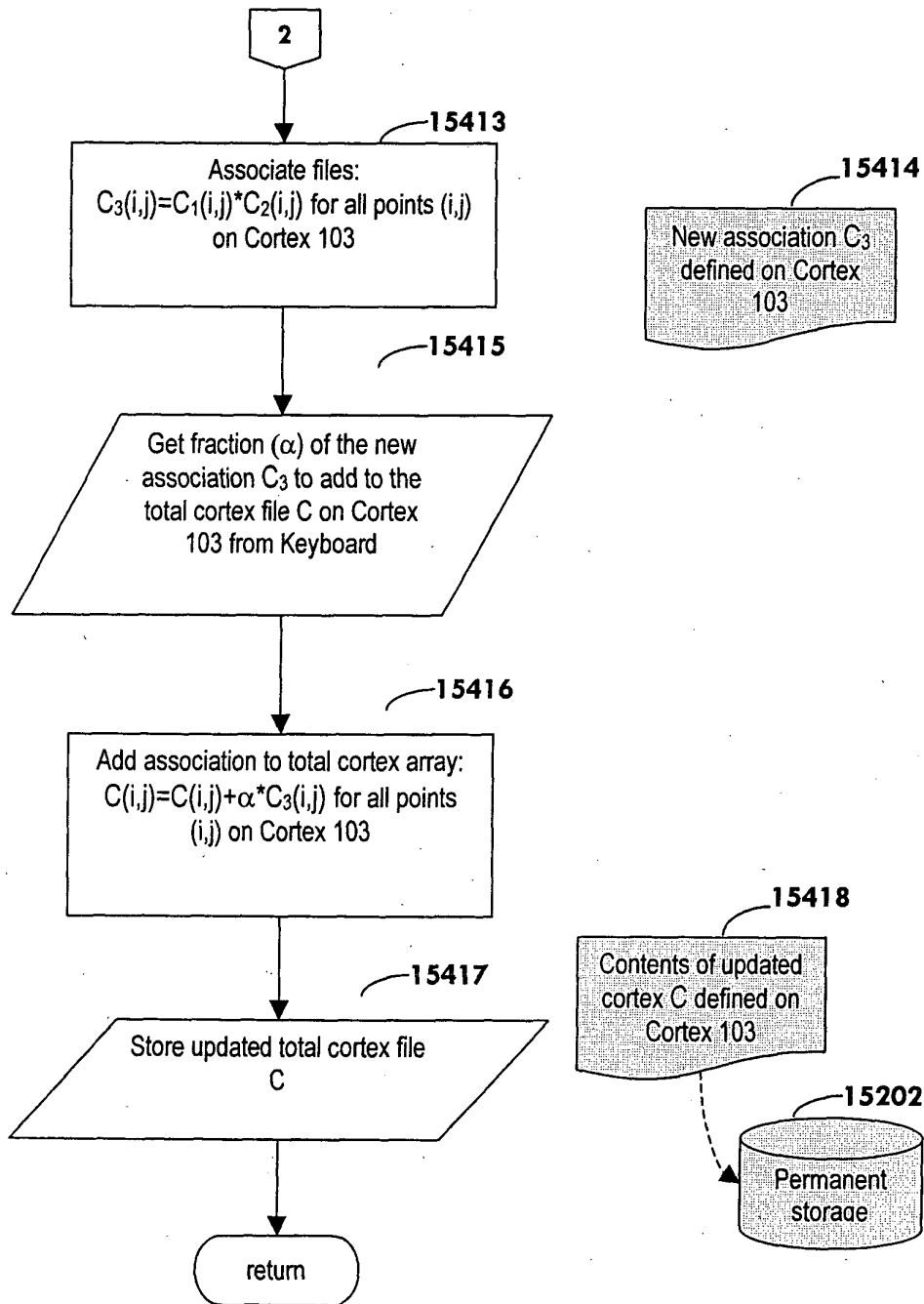


Figure 154b

Flowchart for software embodiment: Learn (continued)



Figure

155a

Flowchart for software embodiment: Recognize

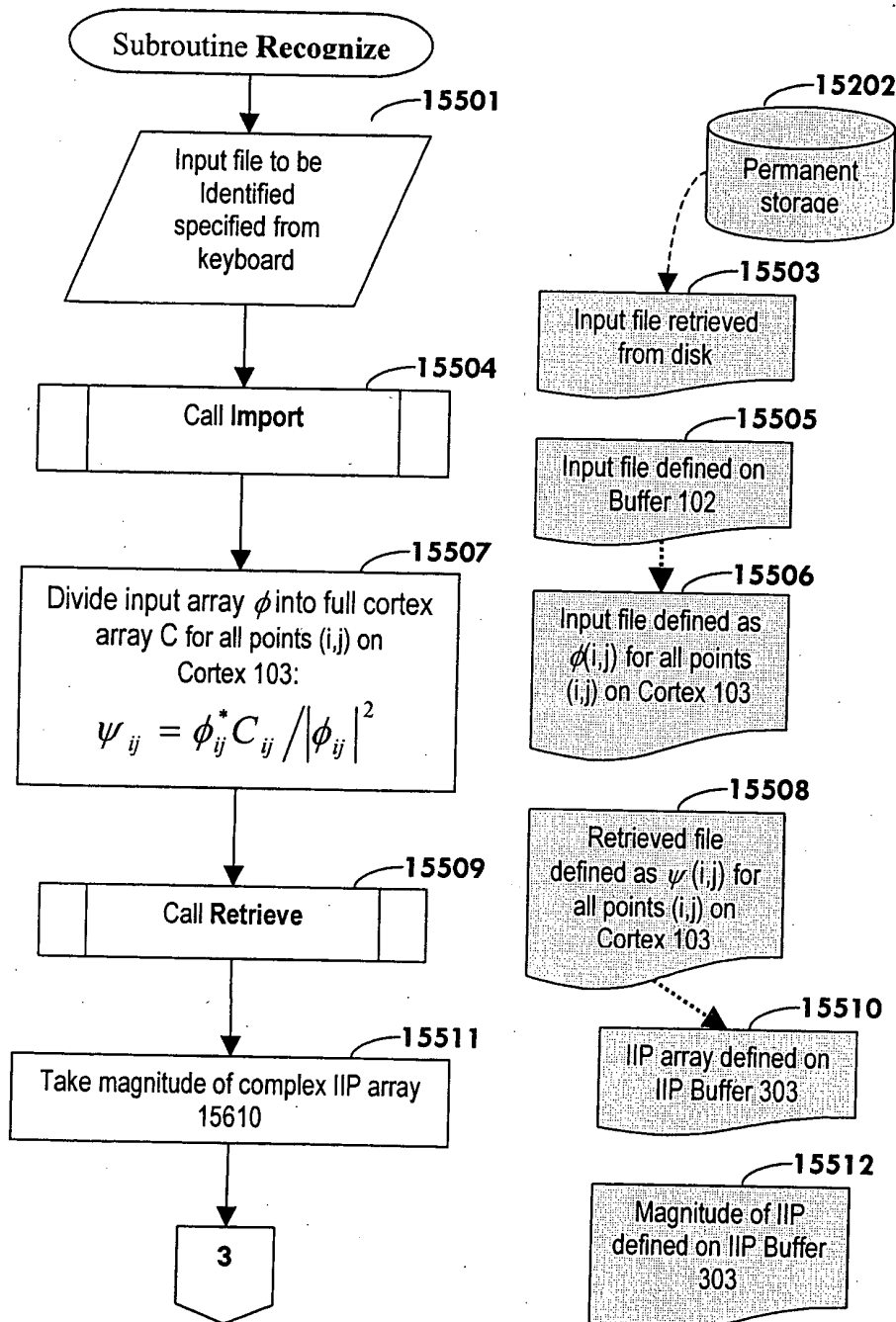
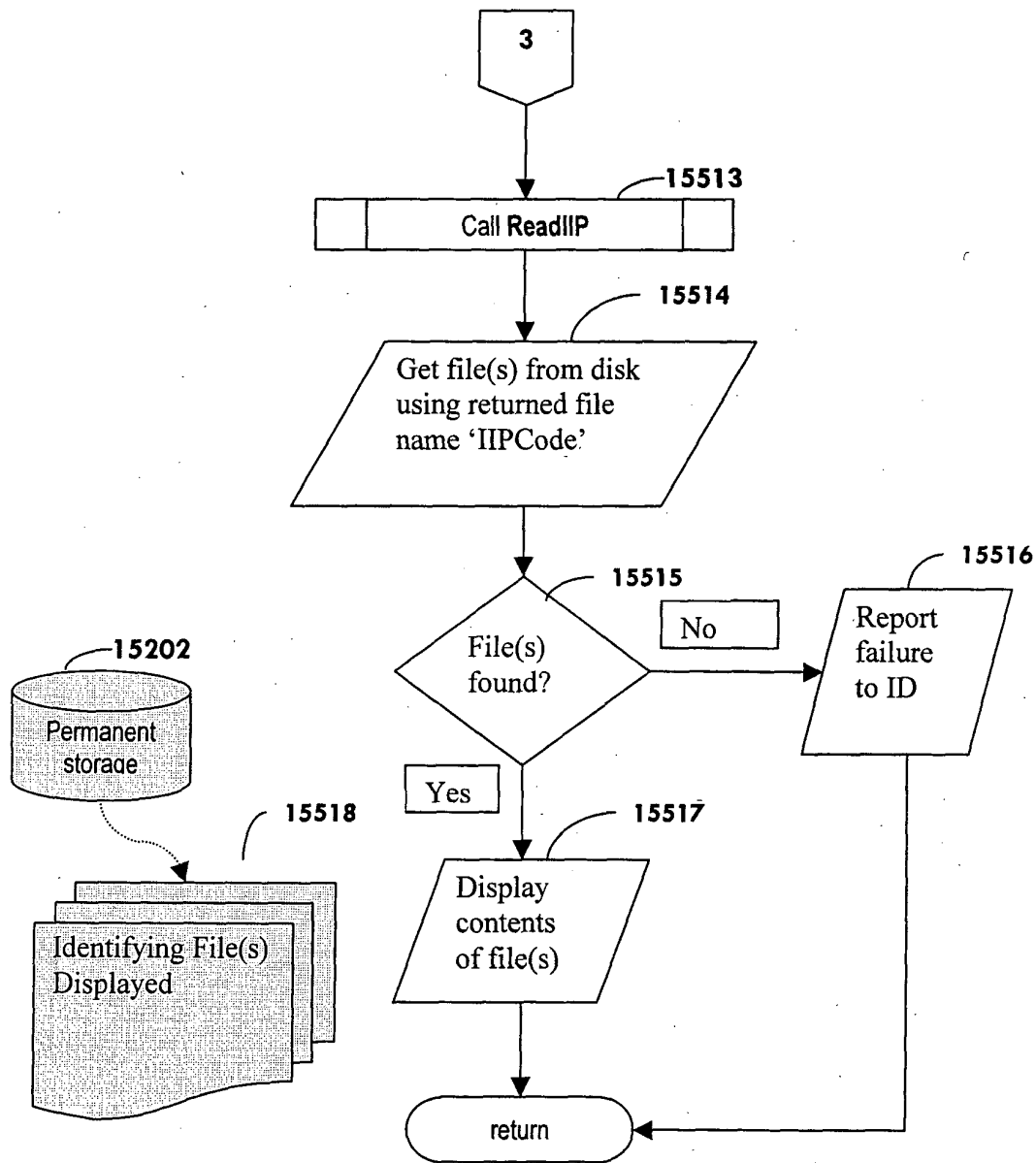


Figure 155b

Flowchart for software embodiment: Recognize (continued)



Figure

156a

Flowchart for software embodiment: Draw IIP

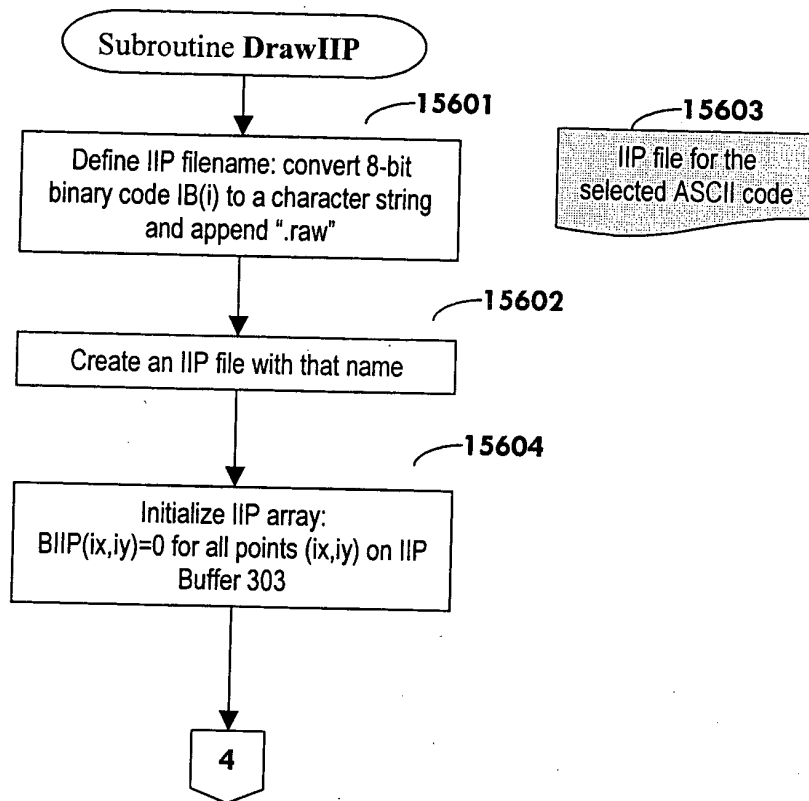


Figure 156b

Flowchart for software embodiment: Draw IIP continued

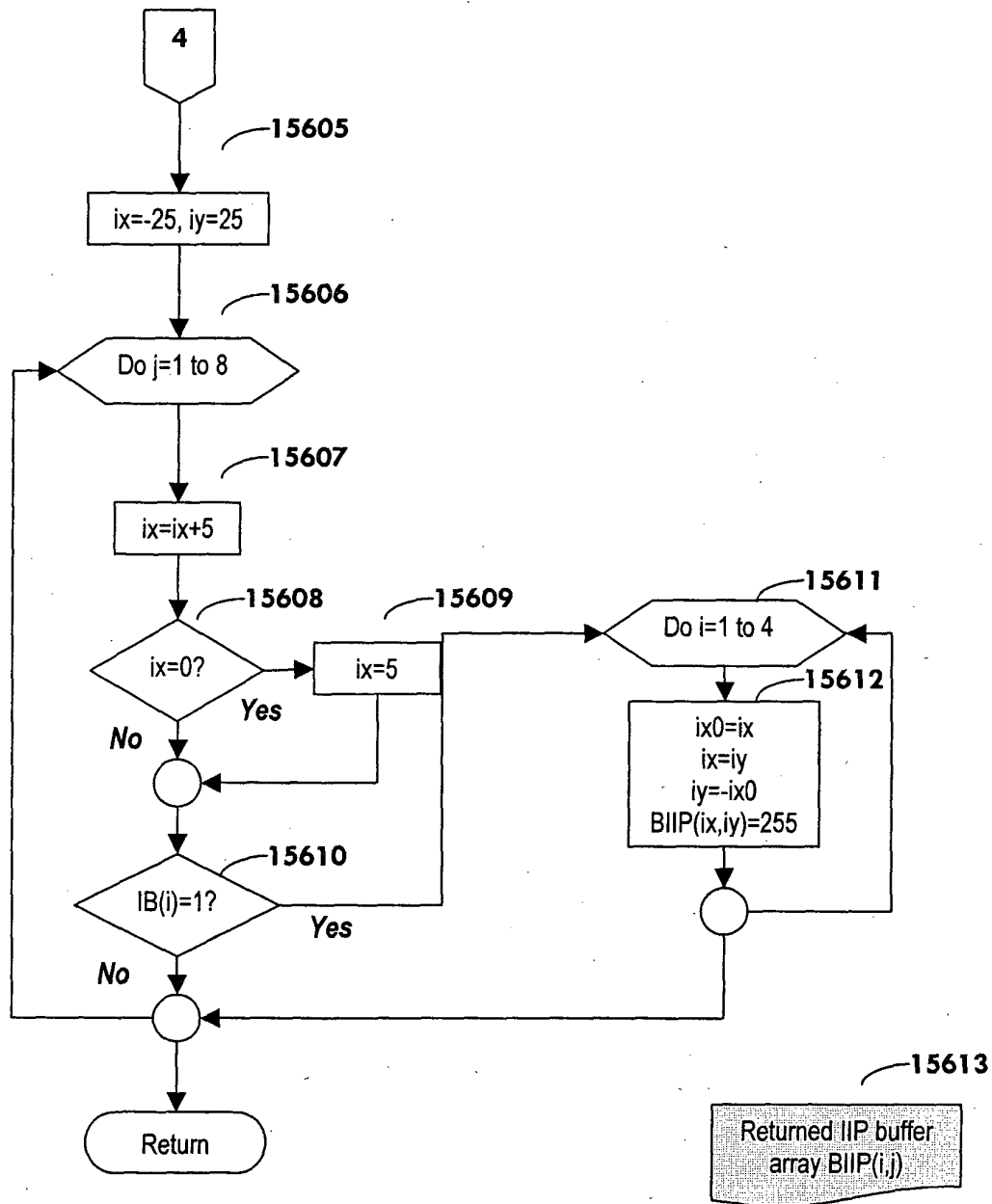


Figure 157

Flowchart for software embodiment: Import

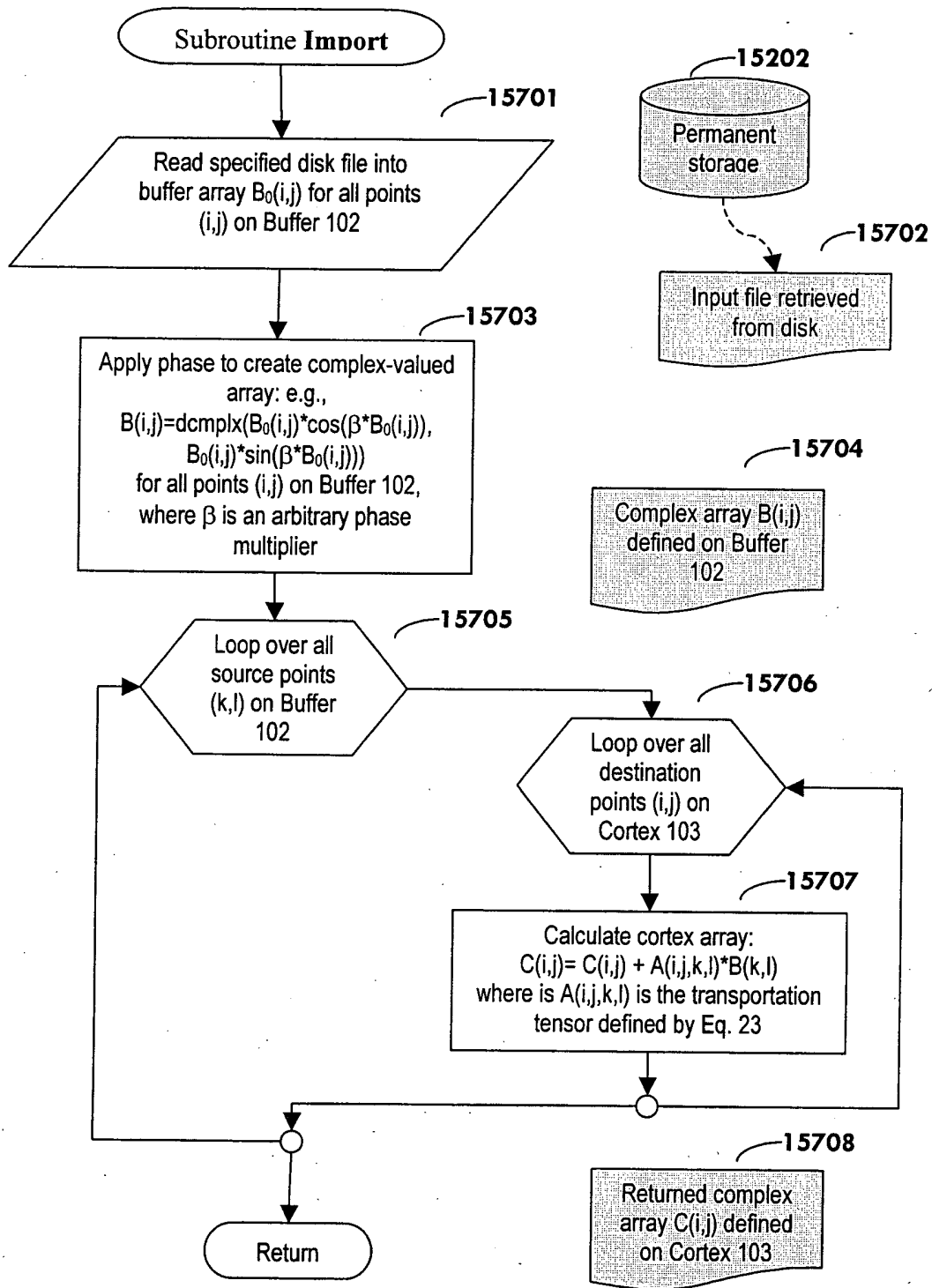


Figure 158

Flowchart for software embodiment: Retrieve

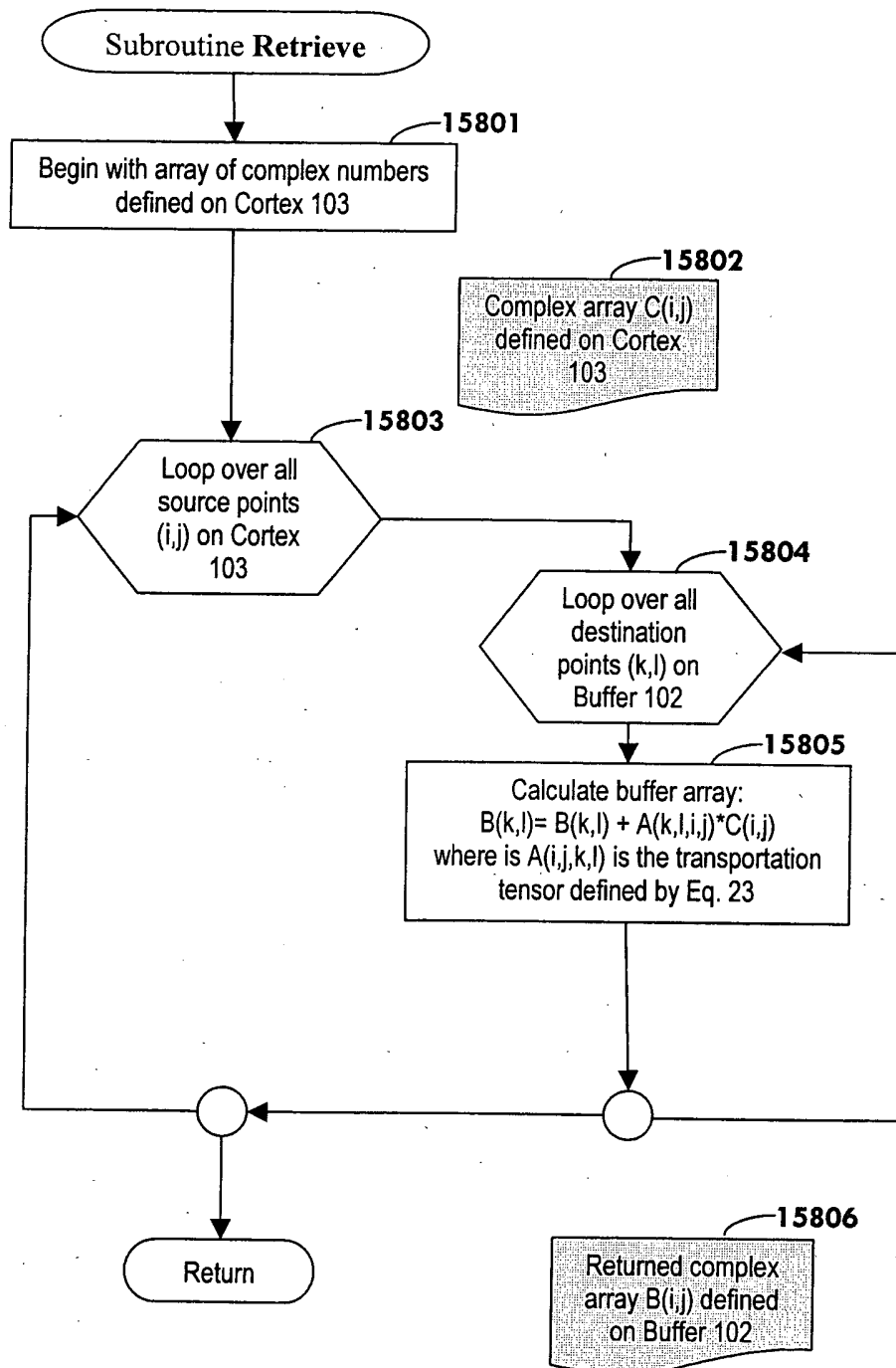


Figure 159(a)

Flowchart for software embodiment: Read IIP

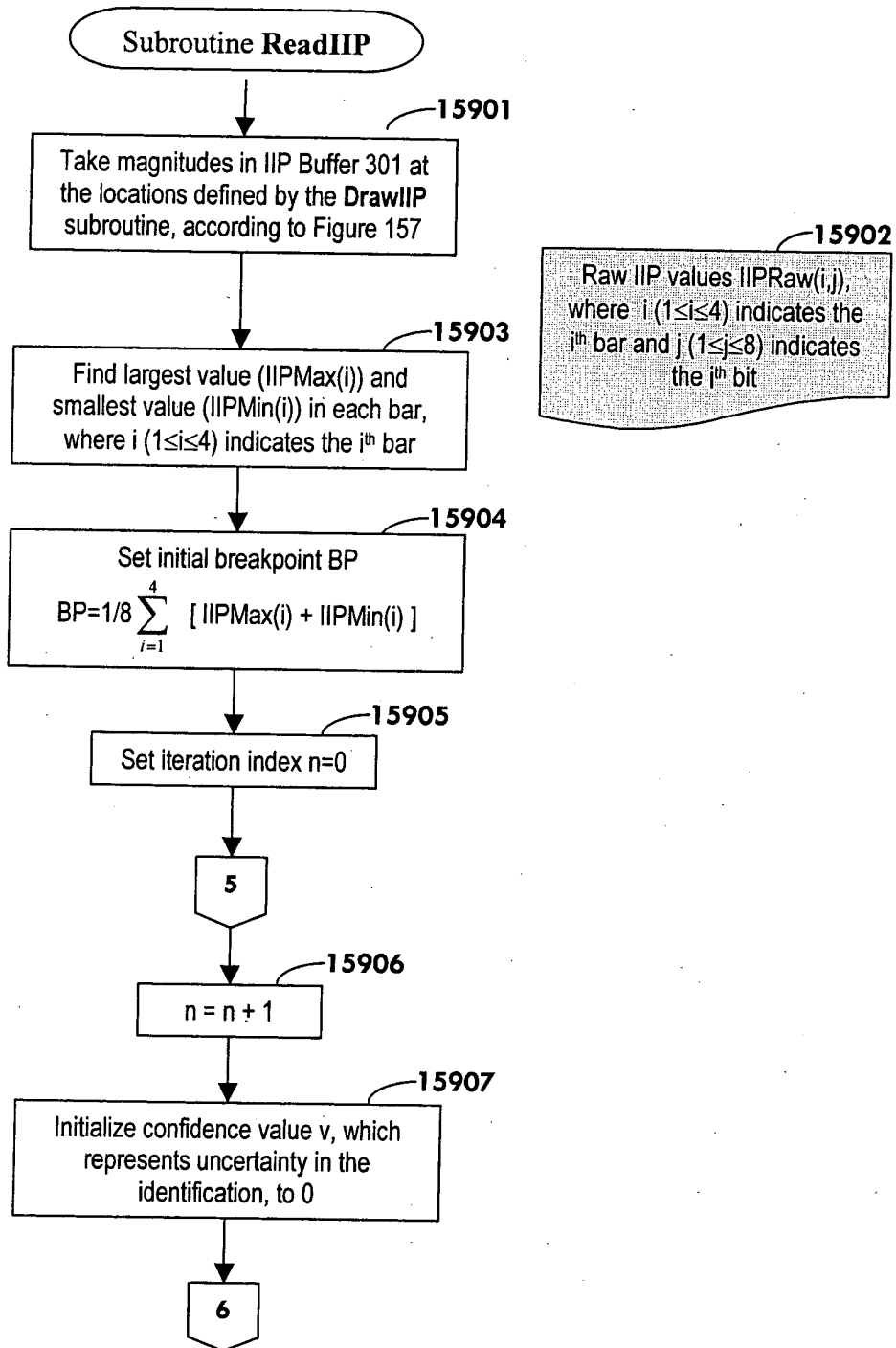


Figure 159b

Flowchart for software embodiment: Read IIP (continued)

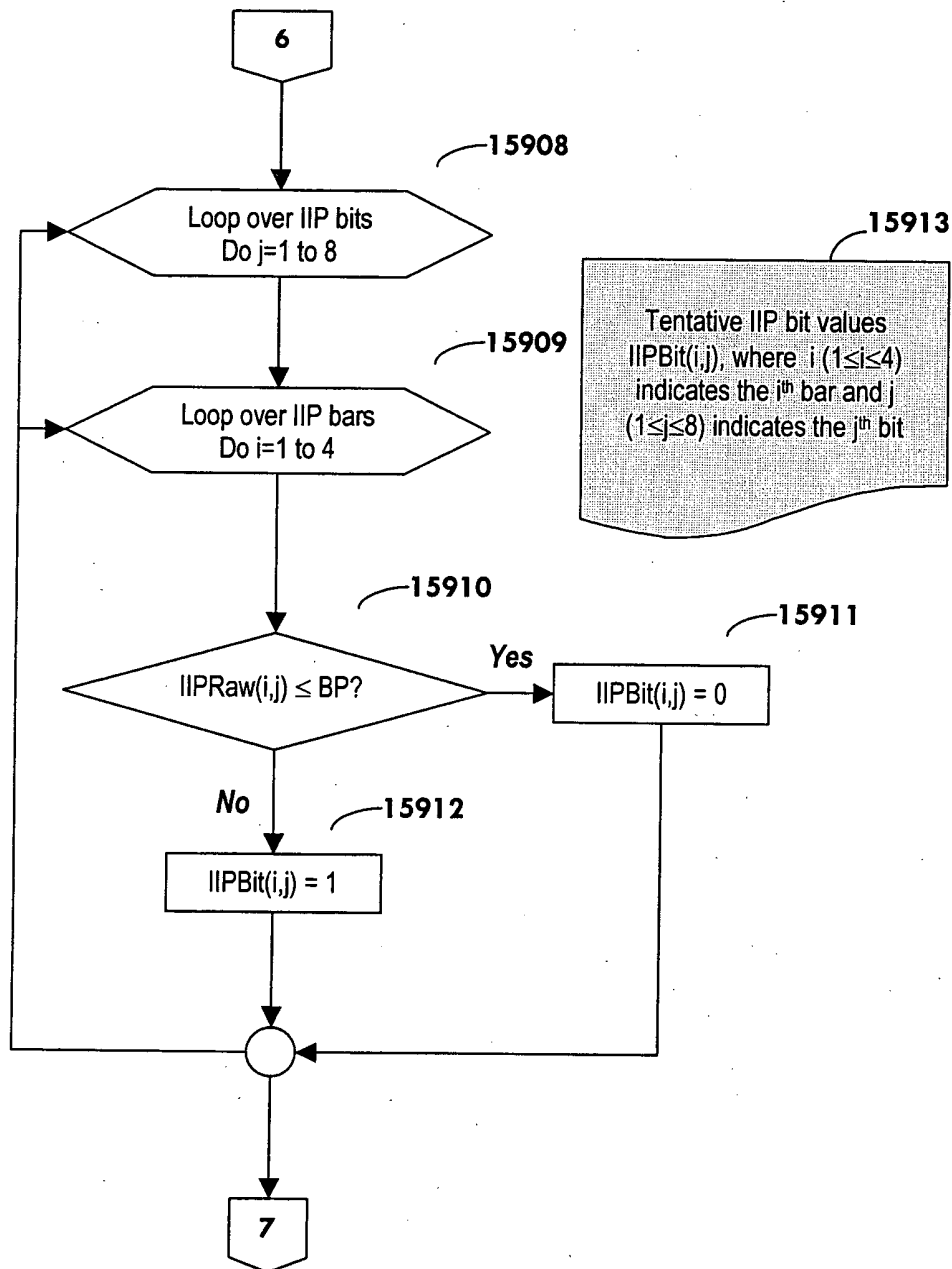


Figure 159c

Flowchart for software embodiment: Read IIP (continued)

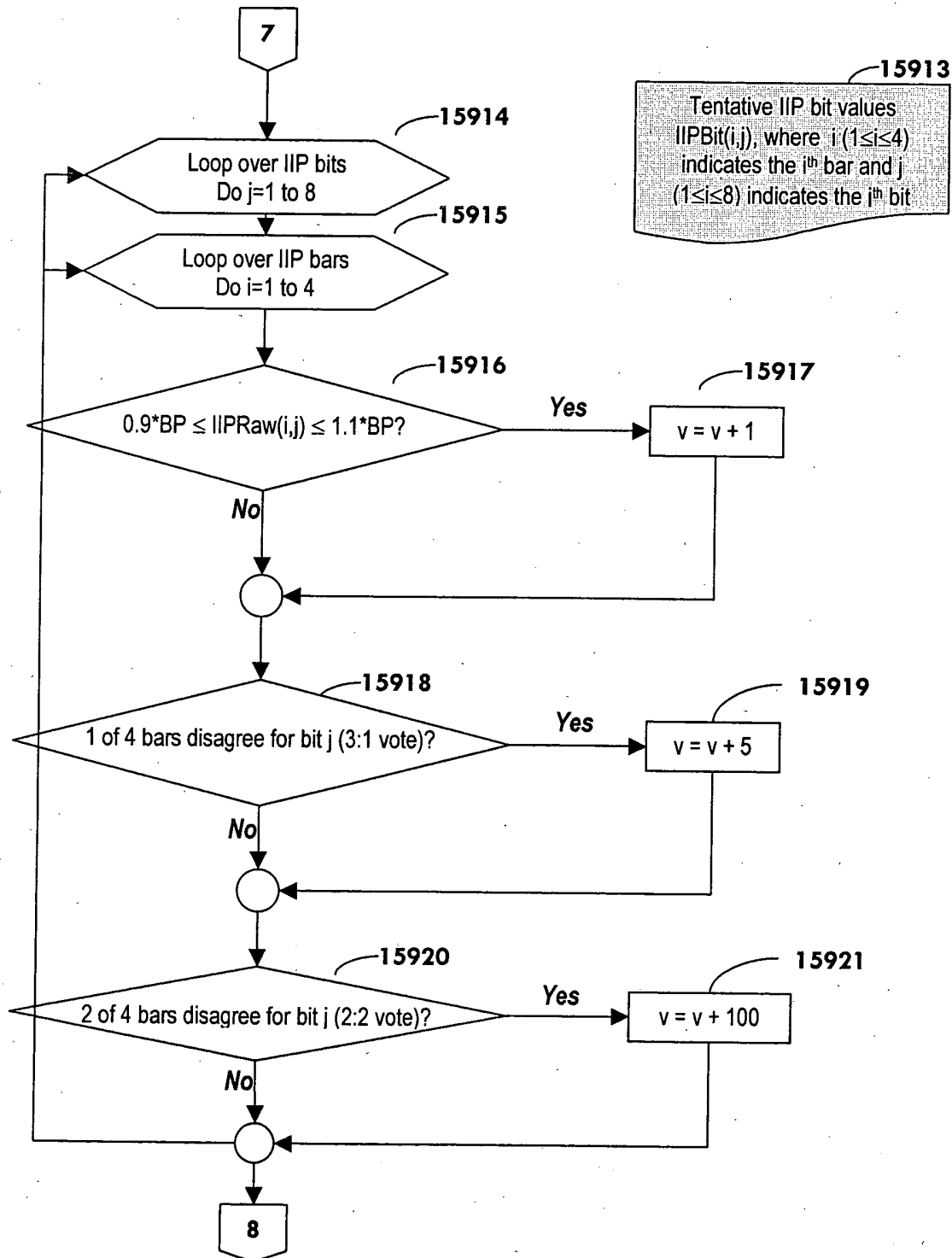


Figure 159d

Flowchart for software embodiment: Read IIP (continued)

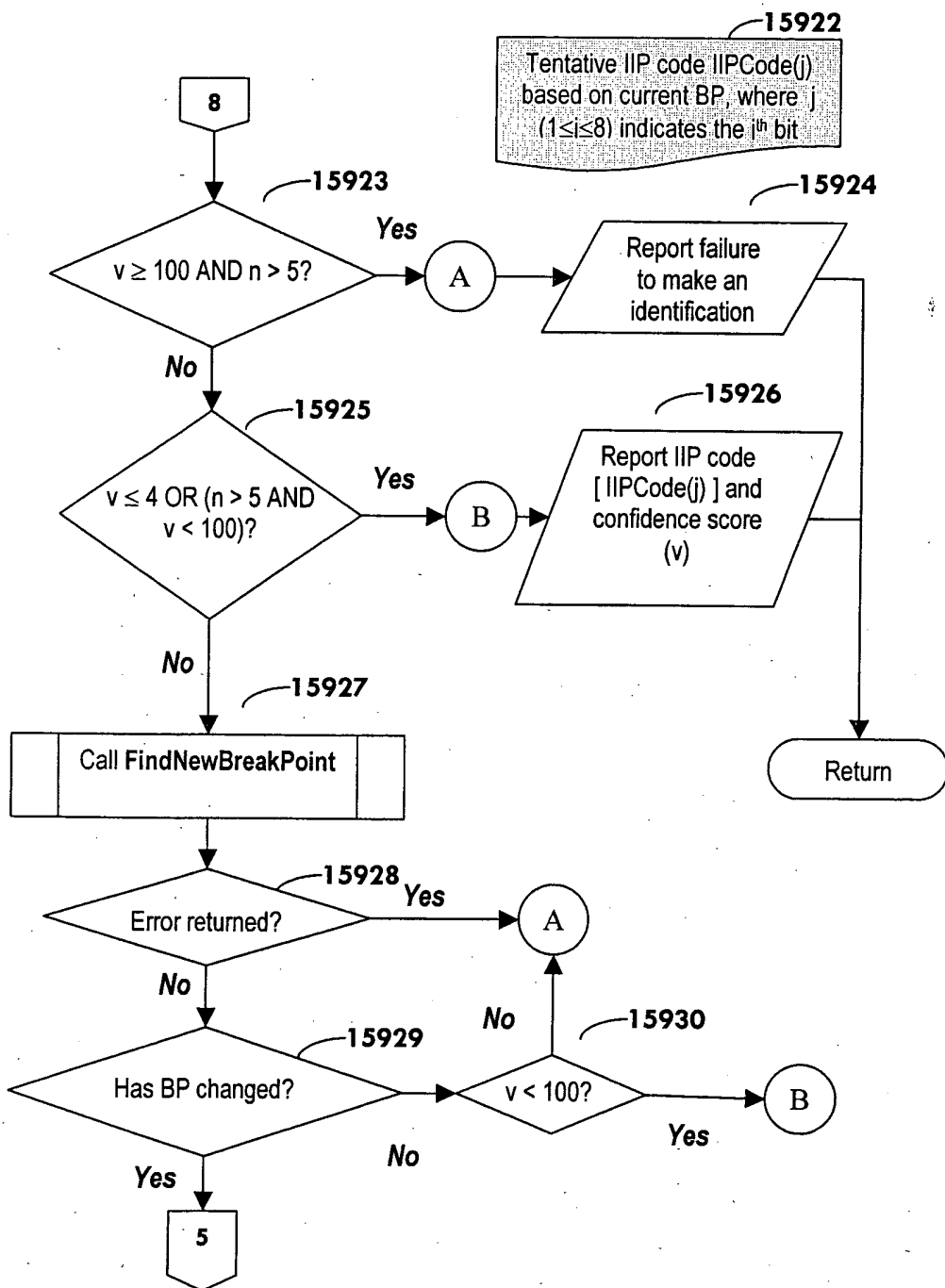


Figure 160

Flowchart for software embodiment: Find New BreakPoint

